| \$ | MMM                | GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG | RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR |     |  |
|--|--------------------|--|--|-----|--|
| \$ | MMM MMM<br>MMM MMM | GGGGGGGG<br>GGGGGGGG<br>GGGGGGGG       | RRR RRR<br>RRR RRR                     | 111 |  |

Val 001 001 001 001 001 7FF 7FF 7FF 7FF 7FF 7FF 7FF

| \$ | MM MM MMMM MMMM MMMMM MMMM MM MM MM MM MM | GGGGGGGG<br>GG<br>GG<br>GG<br>GG<br>GG<br>GG<br>GG<br>GG<br>GG<br>GG         | \$ | RRRRRRRR RR |  | AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA | BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB |
|--|---|--|--|--|--|--|--|
|  |   | \$ |  |  |  |  |  |

4F

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16-Sep-1984 01:22:35 14-Sep-1984 13:10:04 SMG\$STRING\_TABL TPARSE tables for string capabilities VAX-11 Bliss-32 V4.0-742 [SMGRTL.SRC]SMGSTRTAB.B32:1 Page MODULE SMG\$STRING TABLES( %TITLE 'TPARSE tables for string capabilities' | IDENT = '1-003' | File: SMGSTRTAB.B32 Edit: PLL1003 0001 0002 0003 0004 0005 0006 0007 0008 0001 0011 0012 0013 0015 0016 0017 0018 0019 BEGIN COPYRIGHT (c) 1978, 1980, 1982, 1984 BY DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS. ALL RIGHTS RESERVED. THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR ANY OTHER COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY OTHER PERSON. NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY TRANSFERRED. THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT CORPORATION. DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL. FACILITY: Screen Management ABSTRACT: This module contains the LIB\$TPARSE state tables used to parse string capabilities in an ascii TERMTABLE.TXT file. ENVIRONMENT: User mode - AST reentrant AUTHOR: P. Levesque CREATION DATE: 30-Jan-1984 MODIFIED BY: 1-001 - Original. PLL 30-Jan-1984 -002 - Add SMG\$K\_BEGIN\_NORMAL\_RENDITION. PLL 15-Mar-1984 Enhance state tables to accept only !UL FAO directive. Allow comments on lines not terminated by a comma. -003 - Change implementation of control characters. PLL 5-Jul-1984 0049 0050

(1)

52

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```
SMG$STRING_TABL TPARSE tables for string capabilities
                                                                                                                                                                       16-Sep-1984 01:22:35
14-Sep-1984 13:10:04
                                                                                                                                                                                                                                     VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRCJSMGSTRTAB.B32:1
                                                                                                                                                                                                                                                                                                                                                (2)
                                                                                                                                                                                                                                                                                                                                   Page
                                                              %SBITL 'Declarations'
                                         25456789012345678901234567890123456789012345678901234567890123456789012345678
                                                                    SWITCHES:
                                                                   LINKAGES:
                                                                                   NONE
                                                                   TABLE OF CONTENTS:
                                                            FORWARD ROUTINE

CONVERT_CONTROL,

CONVERT_ESCAPE,

EXPRESSION_ERROR,

END_ARITH_CAP,

INIT_ARITH_CAP,

INSERT_CARROT,

INSERT_DOLLAR,

INSERT_EXCLAMATION,

INSERT_PARENTHESIS,

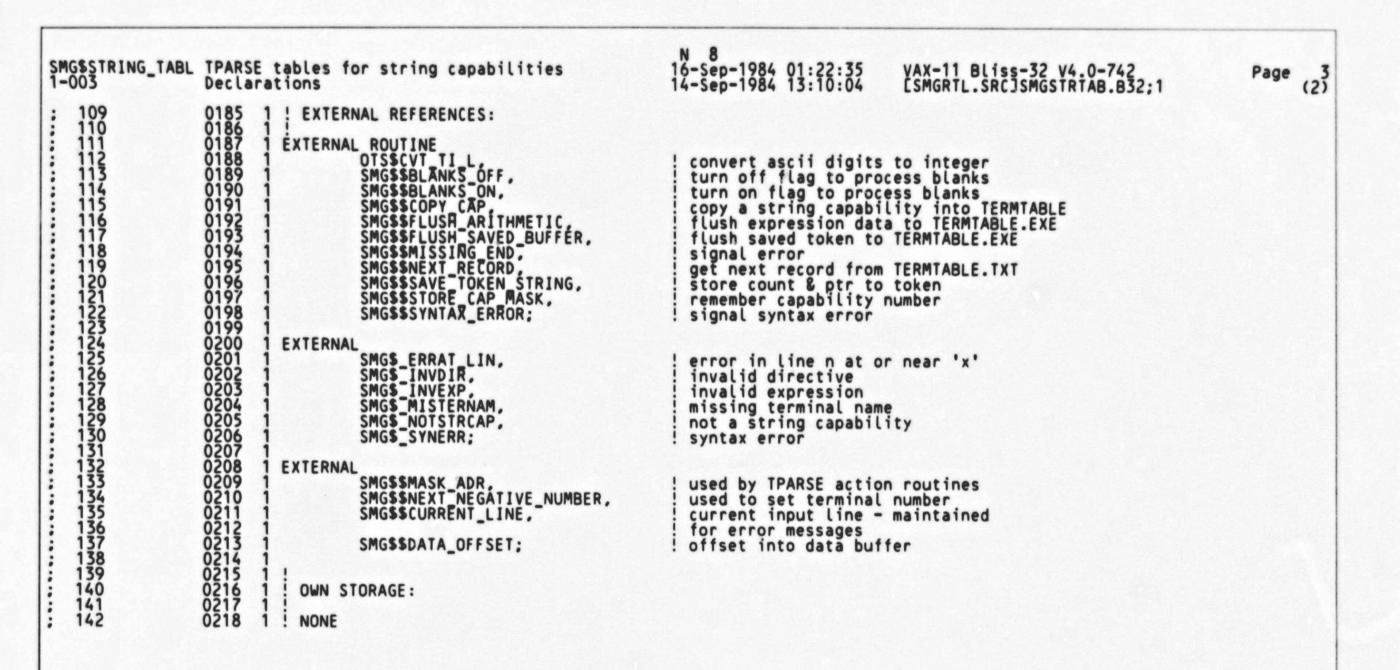
INVALID_DIRECTIVE,

NOT_STRING,

STORE_OPERAND,

STORE_SUBSTITUTION;
                                                                                                                                                                      convert * to control character convert $ to escape character signal an invalid expression error end an arithmetic expression prepare for arithmetic expression insert * into a string insert $ into a string insert! into a string insert! into a string signal invalid directive signal invalid directive signal an unknown capability name store number & operator store % flag in arithmetic cap
                                                                   INCLUDE FILES:
                                                              REQUIRE 'RTLIN: SMGPROLOG';
                                                                                                                                                                      ! Defines psects, macros, etc.
                                                                                                                                                                       ! Definitions and macros used ! to create TERMTABLE.EXE
                                                              LIBRARY 'RTLML: SMGTPALIB':
                                                                                                                                                                       ! TPARSE Library of macros
                                                              LIBRARY 'RTLTPAMAC':
                                                                   EQUATED SYMBOLS:
                                                              LITERAL
                                                                                   SINGLE QUOTE = %x'27',
DOUBLE QUOTE = %x'22',
LEFT PAREN = %x'28',
RIGHT PAREN = %x'29';
                                                                   FIELDS:
                                                                                   NONE
                                                                   PSECTS:
```

54



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```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 SMG$$STRING_TABLES - TPARSE tables for string c 14-Sep-1984 13:10:04
                                                                                                                                                  VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32;1
                                       %SBTTL 'SMG$$STRING_TABLES - TPARSE tables for string capabilities'
    1467
1489
1553
15567
1578
159
                                           FUNCTIONAL DESCRIPTION:
                          02223
02224
02225
02226
02227
02228
02230
                                                     The following are the state tables used to parse string
                                                     capabilities in a terminal definition.
                                       $INIT_STATE (SMG$$A_STRING_STATES, SMG$$A_STRING_KEYWDS);
                                                                                             ! set up state tables, key words
                                          Begin scanning loop. Look for the start of a capability.
                                          Skip over blanks and comments.
     160
                      P 0236
P 0237
P 0238
                                       $STATE (BEGIN SCAN,

((END_OF_LINE), BEGIN SCAN, SMG$$NEXT_RECORD),

('!', BEGIN SCAN, SMG$$NEXT_RECORD),

((CAPABILITY), BEGIN SCAN, SMG$$BLANKS_OFF),

(TPA$_LAMBDA, TPA$_EXIT)
     161
    162
    164
                         0239
                          0240
    166
                          0241
    168
169
170
171
172
173
174
175
176
177
178
179
                          0244
                                        ! This state indicates the end of a line. A comment also signals the
                                          end of a line.
                         0246
0247
0248
0249
0250
                                      SSTATE (END_OF_LINE,
(TPAS_EOS, TPAS_EXIT),
('!', TPAS_EXIT),
                          0251
                                              (TPA$_LAMBDA, TPA$_FAIL)
                         0254
0255
0256
0257
0258
0259
0260
0261
0263
    180
181
182
183
                                          find the capability name and determine if it's one that we expect.
                                        ! The string up to the '=' sign should be the capability name.
                                      $STATE (CAPABILITY,

((STRING_NAME), EQUALS_STRING, SMG$$BLANKS_OFF),

('END', TPA$_FAIL),

('BOOLEAN', TPA$_FAIL),

('NUMERIC', TPA$_FAIL),

('STRING', BEGIN_SCAN),

('REQUIRE', TPA$_FAIL, SMG$$MISSING_END),

('NAME', TPA$_FAIL, SMG$$MISSING_END),

(TPA$_SYMBOL, NOT_STRING)
    184
    186
187
    188
                          0264
    190
191
192
193
                          0265
                         0266
                          0268
                          0269
0270
0271
0272
0273
    194
    196
                                        ! Determine if string capability name is valid.
    198
199
200
                                       SSTATE (STRING_NAME
                                              ('BEGIN_ALTERNATE_CHAR', TPA$_EXIT, , SMG$K_BEGIN_ALTERNATE_CHAR, SMG$$MASK_ADR),
```

Page

```
Les for string capabilities 16-sep-1984 13:10:04

ISBGIN BLINK', PPAS EXIT, SMGSK BEGIN BLINK, SMGSSMASK ADR),

('BEGIN BLINK', PPAS EXIT, SMGSK BEGIN BLINK, SMGSSMASK ADR),

('BEGIN BLINK', PPAS EXIT, SMGSK BEGIN BLINK, SMGSSMASK ADR),

('BEGIN BLINK', PPAS EXIT, SMGSK BEGIN BLINK, SMGSSMASK ADR),

('BEGIN BLINK', PPAS EXIT, SMGSK BEGIN BLINK, SMGSSMASK ADR),

('BEGIN BLINK', PPAS EXIT, SMGSK BEGIN BLINK, SMGSSMASK ADR),

('BEGIN LINK BRABING CHARR, TPAS EXIT, SMGSK BEGIN BLINK, SMGSSMASK ADR),

('BEGIN LINK BRABING CHARR, TPAS EXIT, SMGSK BEGIN BLINK, SMGSSMASK ADR),

('BEGIN RUNDERSCORE', TPAS EXIT, SMGSK BEGIN BLINK, SMGSSMASK ADR),

('BEGIN RUNDERSCORE', TPAS EXIT, SMGSK BEGIN BLINK, SMGSSMASK ADR),

('BEGIN RUNDERSCORE', TPAS EXIT, SMGSK BEGIN BLINK, SMGSSMASK ADR),

('CLEAR THAS TPAS EXIT, SMGSK CLERR THAS SMGSSMASK ADR),

('CLEAR THAS TPAS EXIT, SMGSK CLERR THAS SMGSSMASK ADR),

('CLEAR THAS TPAS EXIT, SMGSK CROSS CHARRED THAN SMGSSMASK ADR),

('CLEAR THAS THAS EXIT, SMGSK CROSS CHARRED THAN SMGSSMASK ADR),

('CLEAR SMG BLINK, TPAS EXIT, SMGSK CLEAR THAS SMGSSMASK ADR),

('CLEAR SMG BLINK, TPAS EXIT, SMGSK CLEAR THAS SMGSSMASK ADR),

('CLEAR SMG BLINK, TPAS EXIT, SMGSK CLEAR THAS SMGSSMASK ADR),

('CLEAR SMG BLINK, TPAS EXIT, SMGSK CLEAR THAS SMGSSMASK ADR),

('CLEAR SMG BLINK, TPAS EXIT, SMGSK CLEAR THAS SMGSSMASK ADR),

('CLEAR SMG BLINK, TPAS EXIT, SMGSK CLEAR THAS SMGSSMASK ADR),

('CLEAR SMG BLINK, TPAS EXIT, SMGSK CLEAR THAS SMGSSMASK ADR),

('CLEAR SMG BLINK, TPAS EXIT, SMGSK CLEAR THAS SMGSSMASK ADR),

('CLEAR SMG BLINK, TPAS EXIT, SMGSK CLEAR THAS SMGSSMASK ADR),

('CLEAR SMG BLINK, TPAS EXIT, SMGSK CLEAR THAS SMGSSMASK ADR),

('CLEAR SMG BLINK, TPAS EXIT, SMGSK CLEAR THAS BLINK, SMGSSMASK ADR),

('CLEAR SMG BLINK, TPAS EXIT, SMGSK CLEAR THAS BLINK, SMGSSMASK ADR),

('CLEAR SMG BLINK, TPAS EXIT, SMGSK CLEAR THAS BLINK, SMGSSMASK ADR),

('CLEAR SMG BLINK, TPAS EXIT, SMGSK CLEAR THAS BLINK, SMGSSMASK ADR),

('CLEAR SMG BLINK, TPAS EXIT, SMGSK CLEAR THAS BLINK, SMGSSMASK ADR),

('CLEAR SMG BLINK, 
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 VAX-11 Bliss-32 V4.0-742 SMG$$STRING_TABLES - TPARSE tables for string c 14-Sep-1984 13:10:04 [SMGRTL.SRC]SMGSTRTAB.B32;1
```

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SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 SMG$$STRING_TABLES - TPARSE tables for string c 14-Sep-1984 13:10:04
                                                                                               VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32:1
              P 0384
P 0385
               P 0386
P 0387
```

```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 SMG$$STRING_TABLES - TPARSE tables for string c 14-Sep-1984 13:10:04
                                 VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32;1
                                                                                                                                                             Page
                   0391
0392
0393
0394
0395
0396
0398
0399
   found a name, now look for the value. Skip over the intervening equals sign. (If we get to '=', then we also have a capability
                                name/number to remember.)
```

```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 SMG$$STRING_TABLES - TPARSE tables for string c 14-Sep-1984 13:10:04
                                                                                                                                                                                                                       VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32:1
                                                                                                                                                                                                                                                                                                                Page
                                     044450123456789012345667
04455123456789012345667
      $STATE (EQUALS_STRING,

((END_OF_LINE), EQUALS_STRING, SMG$$NEXT_RECORD),

('=', STRING_CAP_VALUE, SMG$$$TORE_CAP_MASK),

(TPA$_SYMBOL, SMG$$SYNTAX_ERROR),

(TPA$_ANY, SMG$$SYNTAX_ERROR)
                                  P
                                                              We have found a capability name, now we need to decipher its value. We found a string capability name so this better be a string value.
                                                         $STATE (STRING_CAP_VALUE,

((END_OF_LINE), STRING_CAP_VALUE, SMG$$NEXT_RECORD),

((STRING_CAP), BEGIN_SCAN),

(TPA$_SYMBOL, SMG$$SYNTAX_ERROR),

(TPA$_ANY, SMG$$SYNTAX_ERROR)
                                  P
                                  P
                                  P
                                                        $STATE (COMMA,

(', TPA$ EXIT, SMG$$BLANKS OFF),

(TPA$ BLANK, COMMA, SMG$$BLANKS OFF),

((END_OF_LINE), TPA$ EXIT, SMG$$NEXT_RECORD),

(TPA$_ANY, , SMG$$SYNTAX_ERROR)
                                 P 0468
P 0469
P 0470
P 0471
                                     0472
04774
04776
04776
04777
04777
0488
0488
0488
0488
0499
0497
0497
                                                               A string capability requires further parsing. There may be an embedded
                                                               special character, an FAO call, or arithmetic. A matching quote indicates
                                                               the end of the string value, which should be stored in TERMTABLE.EXE.
                                                            $STATE (STRING_CAP,
(SINGLE_QUOTE, SINGLE_QUOTE_STRING, SMG$$BLANKS_ON),
(DOUBLE_QUOTE, DOUBLE_QUOTE_STRING, SMG$$BLANKS_ON),
                                  P
                                                                     (TPAS_ANY, TPAS_FAIL)
                                                        $STATE (SINGLE QUOTE STRING,

((UNDERSCORE), SINGLE QUOTE STRING),

('$', SINGLE QUOTE STRING, CONVERT_ESCAPE),

((CARROT), SINGLE QUOTE STRING),

((FAO STRING), SINGLE QUOTE STRING),

((ARITH_CAP), SINGLE QUOTE STRING),

(SINGLE QUOTE, COMMA, SMG$$COPY_CAP),

(TPA$ BLANK, SINGLE QUOTE STRING, SMG$$SAVE_TOKEN_STRING),

(DOUBLE QUOTE, SMG$$SYNTAX ERROR),

(TPA$_ANY, SINGLE QUOTE_STRING, SMG$$SAVE_TOKEN_STRING),

(TPA$_LAMBDA, TPA$_EXIT)
      412
       414
       420
421
423
424
425
426
427
428
                                      0498
0499
                                     0500
0501
0502
0503
                                                         $STATE (DOUBLE QUOTE STRING,
((UNDERSCORE), DOUBLE QUOTE STRING),
('$', DOUBLE QUOTE STRING, CONVERT ESCAPE),
                                                                     ((CARROT), DOUBLE_QUOTE_STRING),
```

```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 SMG$$STRING_TABLES - TPARSE tables for string c 14-Sep-1984 13:10:04
                                                                                                                                                                           VAX-11 Bliss-32 V4.0-742
ESMGRTL.SRCJSMGSTRTAB.B32:1
                                                                                                                                                                                                                                                 Page
                                                      ((FAO_STRING), DOUBLE_QUOTE_STRING),
((ARITH_CAP), DOUBLE_QUOTE_STRING),
(DOUBLE_QUOTE, COMMA, SMG$$COPY_CAP),
(TPA$_BCANK, DOUBLE_QUOTE_STRING, SMG$$SAVE_TOKEN_STRING),
(SINGCE_QUOTE, SMG$$SYNTAX_ERROR),
(TPA$_ANY, DOUBLE_QUOTE_STRING, SMG$$SAVE_TOKEN_STRING),
(TPA$_LAMBDA, TPA$_EXIT)
                          Underscore is used to insert special characters into a string as normal text. If this underscore is followed by a special character, skip over it and just store the special character.
                                              SSTATE (UNDERSCORE, UNDERSCORE2)
                                                      (TPAS_LAMBDA, TPAS_FAIL)
                                             $STATE (UNDERSCORE2,

('$', TPA$_EXIT, INSERT_DOLLAR),

('^', TPA$_EXIT, INSERT_CARROT),

('!', TPA$_EXIT, INSERT_EXCLAMATION),

('(', TPA$_EXIT, INSERT_PARENTHESIS),

(TPA$_LAMBDA, TPA$_FAIL)
                                                 If we find a *, advance to the next character and call the conversion
                                                  routine. The conversion routine will complain if this is a control
                                              sequence we don't know about.
                                              SSTATE (CARROT
                                                      (TPA$_LAMBDA, TPA$_FAIL)
                                              SSTATE (CONTROL_CHAR, (TPAS_ANY, TPAS_EXIT, CONVERT_CONTROL)
                                               ! Check for a FAO directive. Make sure it's one we understand.
                                             $STATE (FAO_STRING,
('!', SMG$$SAVE_TOKEN_STRING),
(TPA$_LAMBDA, TPA$_FAIL)
                                              SSTATE (
                                                      ("U", SMG$$SAVE_TOKEN_STRING),
(TPA$_SYMBOL, TPA$_FAIL, INVALID_DIRECTIVE),
(TPA$_ANY, TPA$_FAIL, INVALID_DIRECTIVE)
                               0560
```

```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 SMG$$STRING_TABLES - TPARSE tables for string c 14-Sep-1984 13:10:04
                                                                                                                                                        VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32;1
                                        $STATE (,
    ('L', TPA$_EXIT, SMG$$SAVE_TOKEN_STRING, SMG$K_FAO_STRING, SMG$$MASK_ADR),
    (TPA$_SYMBOL, TPA$_FAIL, INVALID_DIRECTIVE),
    (TPA$_ANY, TPA$_FAIL, INVALID_DIRECTIVE)
                       Parse arithmetic string. We can't complete arithmetic processing until
                                             run-time, but here we pre-compile as much as possible. Arithmetic
                                            expressions are stored as number, op, number, op, number ... etc.
                                        $STATE (ARITH_CAP,
(LEFT_PAREN, ARITH_CAP2, INIT_ARITH_CAP),
(TPA$_BLANK, ARITH_CAP),
(TPA$_LAMBDA, TPA$_FAIL)
                                         $STATE (ARITH CAP2,
((OPERAND), TPA$_EXIT),
                                                                                                               ! errors handled in OPERAND
                                                 (TPAS_LAMBDA, TPAS_FAIL)
                                                                                                               ! return w/out consuming next token
                                        $STATE (OPERATOR,
                                                ('+', OPERAND, , SMG$K_ADD, SMG$$MASK_ADR),
('-', OPERAND, , SMG$K_SUBTRACT, SMG$$MASK_ADR),
('*', OPERAND, , SMG$K_MULTIPLY, SMG$$MASK_ADR),
('/', OPERAND, , SMG$K_DIVIDE, SMG$$MASK_ADR),
(RIGHT_PAREN, TPA$_EXIT, END_ARITH_CAP),
(TPA$_ANY, , EXPRESSION_ERROR)
                                                 OPERAND,
                                         SSTATE (OPERAND
                                                (TPA$ DECIMAL, OPERATOR, STORE_OPERAND), ((SUBSTITUTION), OPERATOR), (TPA$_SYMBOL, EXPRESSION_ERROR), (TPA$_ANY, EXPRESSION_ERROR)
                                        SSTATE (SUBSTITUTION,
                                                (TPAS_LAMBDA, TPAS_FAIL)
                           0604
0605
                                                   % should be followed by a number
                          0606
0607
0608
0609
                                        $STATE (, (TPA$_DECIMAL, TPA$_EXIT, STORE_SUBSTITUTION), (TPA$_ANY, , EXPRESSION_ERROR)
                           0610
```

Page

```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 CONVERT_CONTROL - Convert ^ to control characte 14-Sep-1984 13:10:04
                                                                                                              VAX-11 Bliss-32 V4.0-742
ESMGRTL.SRCJSMGSTRTAB.B32;1
                              %SBTTL 'CONVERT_CONTROL - Convert ^ to control character'
ROUTINE CONVERT_CONTROL =
   FUNCTIONAL DESCRIPTION:
                                        Stores a control character in the current capability string in TERMTABLE.EXE.
                                CALLING SEQUENCE:
                                        status = CONVERT_CONTROL ()
                                FORMAL PARAMETERS:
                                        NONE
                                IMPLICIT INPUTS:
                                        AP
                                                  Points to TPARSE parameter block
                                IMPLICIT OUTPUTS:
   560
561
                                        NONE
   562
5563
5566
5566
5568
5577
5577
5577
5577
                                COMPLETION STATUS:
                                         SS$_NORMAL
                                SIDE EFFECTS:
                                   BEGIN
                                   BUILTIN
                                        CALLG,
                                        AP;
                                  MAP
                                        AP : REF BLOCK [,BYTE];
                                        CAP_PTRS = .AP [PARAM_L_CUR_TERM_DEF] : VECTOR [, WORD];
                                        CONTROL_CHAR : BYTE,
MOVE_CHAR : BYTE;
   ! char following ctrl
! code to place in cap string
                                The NAME capability should have preceded this. Complain if it
                                didn't.
                                   IF CAP_PTRS EQL 0
                                        SIGNAL_STOP (SMG$_MISTERNAM);
                                Control must be followed by a valid character in order to constitute
                                a control code. The character can be shifted or not (lower or upper
```

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52

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```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 CONVERT_CONTROL - Convert ^ to control characte 14-Sep-1984 13:10:04
                                                                                                                VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32:1
                                                                                                                                                              Page
   595
596
597
                                 case).
Since we have already seen a control character, we can translate on
                    0671
0672
0673
0673
0676
0676
0677
0677
0681
0688
0688
0688
0688
0689
0693
0693
0696
                                 the second character in the control string.
   598
599
600
601
602
603
604
606
607
610
611
                                    CONTROL_CHAR = .(.AP [TPA$L_TOKENPTR]) <0,8>;
                                 A control character is in the range 00 - 1F (hex) but is expressed as
                                40 - 5F (hex). Strip off extra bit to get the control character.
                                   MOVE_CHAR = .CONTROL_CHAR AND NOT (%x'40');
                                We now have the byte which must be moved into the capability string. This may not be the first byte of the string - check for saved characters
                                 which have not been copied yet, and append in the control code.
                                   CALLG (.AP, SMG$$FLUSH_SAVED_BUFFER);
                                                                                           ! copy saved string
   616
                                   AP [PARAM_L_SAVED_TOKENENT] = 1;
AP [PARAM_L_SAVED_TOKENSTR] = MOVE_CHAR;
                                                                                            ! control char is now 'saved'
   618
                                   CALLG (.AP, SMG$$FLUSH_SAVED_BUFFER);
                                                                                            ! append control char
   620
621
622
623
                                   RETURN (SS$_NORMAL);
                    0697
                                   END:
                                                                                 ! end of routine CONVERT_CONTROL
                                                                                               .TITLE SMG$STRING_TABLES TPARSE tables for string capa
                                                                                                                                bilities
                                                                                               .IDENT \1-003\
                                                                                              .PSECT _LIB$KEY1$,NOWRT, SHR, PIC,1
                                                                            00000 :TPA$KEYSTO
                                                                                               BLKB
                                                                                    ; TPASKEYST
                                                                            00000
                                                                                    Ú.31:
                                                                                               .ASCII
                                                                                                        IEND!
                                                                                               BYTE
                                                                            00004
                                                                                    : TPASKEYSTO
                                                                                               .BLKB
                                                                                    : TPASKEYST
                                         4E 41 45 4C 4F 4F
                                                                       42
                                                                            00004
                                                                                               .ASCII
                                                                                    U.36:
                                                                                                        \BOOLEAN\
                                                                                               BYTE
                                                                            00000
                                                                                    ; TPASKEYSTO
                                                                                    U.39:
                                                                                               BLKB
                                         43 49 52 45 4D 55
                                                                            0000C
                                                                                    : TPASKEYST
                                                                       4E
                                                                                    U.41:
                                                                                                        \NUMERIC\
                                                                                               BYTE
                                                                            00014
                                                                                    : TPASKEYSTO
                                                                                               BLKB
                                                                                    : TPASKEYST
                                              47 4E 49 52 54
                                                                       53
                                                                            00014
                                                                                                        \STRING\
                                                                                              .ASCII
                                                                                    U.46:
                                                                            0001A
```

| MG! | STR | ING_ | TABL | TPA | RSE | tabl<br>CON | es 1 | for | strin | g ca | pabi | liti | es | char     | acte 1                  | 9<br>-Sep-1984 01:22:39<br>-Sep-1984 13:10:0      | 5 VAX-11 Bliss-32 V4.0-742<br>ESMGRTL.SRCJSMGSTRTAB.B32:1 | Page ( |
|-----|-----|------|------|-----|-----|-------------|------|-----|-------|------|------|------|----|----------|-------------------------|---|---|--------|
|     |     |      |      |     |     |             |      |     |       |      |      |      |    |          |                         | TPASKEYSTO  |   |        |
|     |     |      |      |     |     |             |      | 45  | 52    | 49   | 55   | 51   | 45 | 52       | 0001B                   | ; TPASKEYST                                       | REQUIRE   |        |
|     |     |      |      |     |     |             |      |     |       |      |      |      |    | FF       | 00022                   | ; TPASKEYSTO -                                    | 1   | ì      |
|     |     |      |      |     |     |             |      |     |       |      | 45   | 40   | 41 | 4E       | 00023                   | U.55: BLKB 0<br>;TPA\$KEYST<br>U.57: ASCII \      |   |        |
|     |     |      |      |     |     |             |      |     |       |      |      |      |    | FF       | 00027<br>00028          | .BYTE -   | NAME \  | 1      |
|     |     |      |      |     |     |             |      |     |       |      |      |      |    | "        | 00029                   | ;TPA\$KEYFILL<br>U.63: BYTE -<br>;TPA\$KEYSTO     | 1   | ;      |
| 5   | 54  | 41   | 4E   | 52  | 45  | 54          | 40   | 41  | 5F    | 4E   | 49   | 47   | 45 | 42       | 00029                   | U.64: .BLKB 0                                     |   |        |
|     |     |      |      |     |     |             |      |     |       | 52   | 41   | 48   | 43 | 5F       | 00038<br>0003D          |   | BEGIN_ALTERNATE_CHAR\                                     | !      |
|     |     |      |      |     |     |             |      |     |       |      |      |      |    | FF       | 0003D<br>0003E          | ;TPASKEYSTO -                                     |   | ;      |
|     |     |      |      | 4B  | 4E  | 49          | 40   | 42  | 5F    | 4E   | 49   | 47   | 45 | 42       | 0003E                   | U.71: BLKB 0                                      |   |        |
|     |     |      |      |     |     |             |      |     |       |      |      |      |    | FF       | 00049                   | .BYTE -   | BEGIN_BLINK\  |        |
|     |     |      |      |     | 44  | 40          | 4F   | 42  | 5F    | 4E   | 49   | 47   | 45 | 42       | 0004A                   | ;TPA\$KEYSTO<br>U.78: .BLKB 0<br>;TPA\$KEYST      |   |        |
|     |     |      |      |     |     |             |      |     | -     |      | "    | "    | 7, | FF       | 00054                   | U.80: ASCII N                                     | BEGIN_BOLD\   |        |
|     |     |      |      |     |     |             |      |     |       |      |      |      |    |          | 00055                   | ;TPA\$KEYSTO<br>U.85: .BLKB 0                     |   |        |
|     | 4D  | 5F   | 45   | 54  | 45  | 40          | 45   | 44  | 5F    | 4E   | 49   | 47   | 45 | 42       | 00055                   | :TPA\$KEYST<br>U.87: .ASCII \E                    | BEGIN_DELETE_MODE\  | :      |
|     |     |      |      |     |     |             |      |     |       |      |      |      | 45 | FF       | 00064<br>00066<br>00067 | :TPASKEYSTO                                       | 1   |        |
|     | 40  | SE   | 54   | 52  | 45  | 53          | 4E   | 49  | 5F    | 4E   | 49   | 47   | 45 | 42       | 00067                   | U.92: BLKB 0                                      |   |        |
|     |     | -    | ~    | -   | 7,  | ,,          | "    | 7,  | "     | 7.   | 7,   | 7'   | 45 |          |                         | U.94: ASCII VE                                    | BEGIN_INSERT_MODE\  |        |
|     |     |      |      |     |     |             |      |     |       |      |      |      |    | FF       | 00076<br>00078<br>00079 | ;TPASKEYSTO -1                                    | 1   |        |
| 7   | 41  | 52   | 44   | 5F  | 45  | 4E          | 49   | 40  | 5F    | 4E   | 49   | 47   | 45 | 42       | 00079                   | U.99: BLKB 0                                      |   |        |
|     |     |      |      |     |     |             | 52   | 41  | 48    | 43   | 5F   | 47   | 4E | 49       | 00088                   | U.101: .ASCII \8                                  | BEGIN_LINE_DRAWING_CHAR\                                  | 1      |
|     |     |      |      |     |     |             |      |     |       |      |      |      |    | FF       | 00090                   | :TPASKEYSTO                                       |   |        |
| 5   | 52  | 5F   | 40   | 41  | 40  | 52          | 4F   | 4E  | 5F    | 4E   | 49   | 47   | 45 | 42       | 00091                   | U.106: .BLKB 0<br>:TPA\$KEYST<br>U.108: .ASCII \E | BEGIN_NORMAL_RENDITION\                                   |        |
|     |     |      |      |     |     |             |      | 4E  | 4F    | 49   | 54   | 49   | 44 | 4E<br>FF | 000A0<br>000A7          | BYTE -1   |   |        |
|     |     |      |      |     |     |             |      |     |       |      |      |      |    |          | 8A000                   | U.113: .BLKB 0                                    |   |        |
|     |     | 45   | 53   | 52  | 45  | 56          | 45   | 52  | 5F    | 4E   | 49   | 47   | 45 | 42       | 8A000                   | U.115: ASCII VE                                   | BEGIN_REVERSE\  |        |
|     |     |      |      |     |     |             |      |     |       |      |      |      |    | FF       | 000B5                   | .BYTE -1  |   |        |

| 1G1 | STR | ING_ | TABL | CON | RSE | _CON | es f | or ! | strin<br>Conve | gca | pabi | liti | es | char     | acte 1                  | -Sep-1984 01:22<br>-Sep-1984 13:10          | :35 VAX-11 Bliss-32 V4.0-742<br>:04 [SMGRTL.SRC]SMGSTRTAB.B32;1 | Page 1 |
|-----|-----|------|------|-----|-----|------|------|------|----------------|-----|------|------|----|----------|-------------------------|---|---|--------|
|     | ,.  |      | .,   | -   | ,,  |      | ,-   |      |                |     |      |      |    |          |                         | TPASKEYSTO                                  | 0   |        |
| 2   | 4F  | 43   | 53   | 26  | 45  | 44   | 4E   | 55   | 5F             | 4E  | 49   | 47   | 45 | 42       |                         | TPASKEYST<br>U.122: .ASCII                  | \BEGIN_UNDERSCORE\  |        |
|     |     |      |      |     |     |      |      |      |                |     |      |      |    | FF<br>FF | 000C5<br>000C6<br>000C7 | :TPASKEYSTO                                 | -1  | ;      |
|     |     | 52   | 41   | 48  | 43  | 5F   | 54   | 5F   | 40             | 4F  | 54   | 54   | 4F | 42       | 000C7                   | U.127: BLKB<br>;TPA\$KEYST                  | 0   |        |
|     |     |      |      |     |     |      |      |      |                |     |      |      |    | FF       | 00004                   | U.129: ASCII                                | \BOTTOM_T_CHAR\   |        |
|     |     |      |      |     |     |      |      |      |                |     |      |      |    |          | 000D5                   | TPASKEYSTO                                  | 0   |        |
|     |     |      |      |     |     | 42   | 41   | 54   | 5F             | 52  | 41   | 45   | 40 | 43       |                         | U.136: ASCII                                | \CLEAR_TAB\   |        |
|     |     |      |      |     |     |      |      |      |                |     |      |      |    | FF       | 000DE<br>000DF          | ; TPASKEYSTO                                | -1  | :      |
|     |     |      |      |     | 43  | 49   | 48   | 50   | 41             | 52  | 47   | 5F   | 52 | 43       | 000DF                   | U.141: BLKB                                 | 0   |        |
|     |     |      |      |     |     |      |      |      |                |     |      |      |    | FF       | 000E9                   | U.143: ASCII                                | \CR_GRAPHIC\  | :      |
|     |     |      |      |     |     | ,,   |      |      |                |     |      |      |    |          | 000EA                   | TPASKEYSTO                                  | 0   |        |
|     |     |      |      |     | 52  | 41   | 48   | 43   | 5F             | 53  | 53   | 4F   | 52 | 43       |                         | TPASKEYST U.150: .ASCII                     | \CROSS_CHAR\  | :      |
|     |     |      |      |     |     |      |      |      |                |     |      |      |    | FF       | 000F4<br>000F5          | :TPASKEYSTO                                 | -1  | •      |
|     |     |      |      | 4E  | 57  | 4F   | 44   | 5F   | 52             | 4F  | 53   | 52   | 55 | 43       | 000F5                   | U.155: BLKB                                 | 0   |        |
|     |     |      |      |     |     |      |      |      |                |     |      |      |    | FF       | 00100<br>00101          | U.157: ASCII                                | \CURSOR_DOWN\   |        |
|     |     |      |      | 54  | 46  | 45   | 40   | 5F   | 52             | 45  | 53   | 52   | 55 | 43       | 00101                   | :TPA\$KEYSTO<br>U.162: BLKB<br>:TPA\$KEYST  | 0   |        |
|     |     |      |      | ,   | 70  | ٠,   | 70   | ,    | ,,             | 7   | ,,   | ,,   | ,, | FF       | 00100                   | U.164: ASCII                                | \CURSOR_LEFT\   |        |
|     |     |      |      |     |     |      |      |      |                |     |      |      |    |          | 0010D                   | TPASKEYSTO                                  | 0   | •      |
|     | 49  | 40   | 5F   | 54  | 58  | 45   | 4E   | 5F   | 52             | 4F  | 53   | 52   | 55 | 43       | 0010D                   | TPASKEYST<br>U.171: .ASCII                  | \CURSOR_NEXT_LINE\  |        |
|     |     |      |      |     |     |      |      |      |                |     |      |      |    | 45<br>FF | 0011C<br>0011D          | BYTE  | -1  |        |
|     |     |      |      |     |     |      |      |      |                |     |      |      |    |          | 0011E                   | :TPASKEYSTO                                 | 0   |        |
|     | 4F  | 49   | 54   | 49  | 53  | 4F   | 50   | 5F   | 52             | 4F  | 53   | 52   | 55 | 43       | 0011E                   | Ú.176: BLKB<br>:TPA\$KEYST<br>Ú.178: .ASCII | \CURSOR_POSITION_REPORT\  |        |
|     |     |      |      |     |     |      |      | 54   | 52             | 4F  | 50   | 45   | 52 | 5F<br>FF | 0012D<br>00134          | BYTE  | -1  |        |
|     |     |      |      |     |     |      |      |      |                |     |      |      |    |          | 00135                   | TPASKEYSTO                                  | 0   |        |
|     | 44  | 45   | 45   | 43  | 45  | 52   | 50   | 5F   | 52             | 4F  | 53   | 52   | 55 | 43       | 00135                   | :TPASKEYST<br>U.185: .ASCII                 | \CURSOR_PRECEEDING_LINE\  |        |
|     |     |      |      |     |     |      |      | 45   | 4E             | 49  | 40   | 5F   | 47 | 4E<br>FF | 00144<br>0014B          | .BYTE                                       | -1  |        |
|     |     |      |      |     |     |      |      |      |                |     |      |      |    |          | 0014C                   | :TPASKEYSTO<br>U.190: .BLKB                 | 0   |        |
|     |     |      | 54   | 48  | 47  | 49   | 52   | 5F   | 52             | 4F  | 53   | 52   | 55 | 43       | 0014C                   | ; TPASKEYST                                 |   |        |

| 1G\$STI | RING_ | TABL | TPA | RSE<br>VERT | _CON | es f | or s | strin<br>Conve | g ca | pabi | liti | es  | char     | acte 1                  | 5-Sep-1984 01:22<br>4-Sep-1984 13:10   | :35 VAX-11 Bliss-32 V4.0-742<br>:04 [SMGRTL.SRC]SMGSTRTAB.B32;1 | Page 1 |
|---------|-------|------|-----|-------------|------|------|------|----------------|------|------|------|-----|----------|-------------------------|--|---|--------|
|         |       |      |     |             |      |      |      |                |      |      |      |     | FF       | 00158<br>00159          | U.192: ASCII                           | \CURSOR_RIGHT\  | :      |
|         |       |      |     |             | 50   | 55   | 5F   | 52             | 4F   | 53   | 52   | 55  | 1.3      |                         | TPASKEYSTO                             | 0   |        |
|         |       |      |     |             | ,,   | ,,   | "    | ,,             | 1    | 53   | 52   | 55  | 43<br>FF | 00159                   | U.199: ASCII                           | \CURSOR_UP\   |        |
|         |       |      |     |             |      |      |      |                |      |      |      |     |          | 00163                   | TPASKEYSTO                             | 0   |        |
|         |       |      | 4E  | 45          | 45   | 52   | 43   | 53             | 5F   | 48   | 52   | 41  | 44       |                         | ; TPA\$KEYST                           | \DARK_SCREEN\   |        |
|         |       |      |     |             |      |      |      |                |      |      |      |     | FF       | 0016E<br>0016F          | ; TPASKEYSTO BYTE                      |   | ,      |
|         |       |      | 52  | 41          | 48   | 43   | 5F   | 45             | 54   | 45   | 40   | 45  | 44       | 0016F                   | U.211: BLKB                            | O NOTIFIE CHARN   |        |
|         |       |      |     |             |      |      |      |                |      |      |      |     | FF       | 0017A<br>0017B          | U.213: ASCII<br>BYTE<br>;TPA\$KEYSTO   | \DELETE_CHAR\   | :      |
|         |       |      | 45  | 4E          | 49   | 40   | 5F   | 45             | 54   | 45   | 40   | 45  | 44       | 0017B                   | U.218: .BLKB                           | 0   |        |
|         |       |      |     |             |      |      |      |                |      |      |      |     | FF       | 00186                   | U.220: ASCII                           | \DELETE_LINE\   | 1      |
| 55      | 42    | 49   | 52  | 54          | 54   | 41   | 5F   | .5             | 1.3  | 40   | 54   |     | ,,       | 00187                   | TPASKEYSTO                             | 0   |        |
| ,,      | 76    | 77   | ,,  | ,,          | ,,   | -    | 31   | 45             | 43   | 49   | 56   | 53  | 44       | 00187                   | :TPASKEYST<br>U.227: .ASCII            | \DEVICE_ATTRIBUTES\   |        |
|         |       |      |     |             |      |      |      |                |      |      |      | -   | FF       | 00198                   | :TPASKEYSTO                            | -1  | ;      |
| 4F      | 42    | 5F   | 48  | 47          | 49   | 48   | 5F   | 45             | 40   | 42   | 55   | 4F  | 44       | 00199                   | U.232: BLKB                            | 0   |        |
|         |       |      |     |             |      |      |      |                |      |      | 4D   | 4F  | 54<br>FF | 001A8<br>001AB          | U.234: .ASCII                          | \DOUBLE_HIGH_BOTTOM\  |        |
|         |       |      |     |             |      |      |      |                |      |      |      |     | "        | 001AC                   | :TPA\$KEYSTO<br>U.239: .BLKB           | 0   | •      |
| 4F      | 54    | 5F   | 48  | 47          | 49   | 48   | 5F   | 45             | 40   | 42   | 55   | 4F  | 44       |                         | :TPASKEYST<br>U.241: .ASCII            | \DOUBLE_HIGH_TOP\   |        |
|         |       |      |     |             |      |      |      |                |      |      |      |     | FF       | 001BB<br>001BC          | :TPA\$KEYSTO<br>U.246: .BLKB           | •1  | ;      |
|         |       |      | 45  | 44          | 49   | 57   | 5F   | 45             | 40   | 42   | 55   | 4F  | 44       | 001BC                   | ; TPASKEYST                            | O NOUBLE HIDEN  |        |
|         |       |      |     |             |      |      |      |                |      |      |      |     | FF       | 001C7<br>001C8          | U.248: .ASCII                          | \DOUBLE_WIDE\   | :      |
|         |       |      |     |             | 45   | 54   | 41   | 43             | 49   | 40   | 50   | 55  | 44       | 00108                   | TPASKEYSTO<br>U.253: BLKB<br>TPASKEYST | 0   |        |
|         |       |      |     |             |      |      |      |                |      |      |      |     | FF       | 001D1                   | U.255: ASCII                           | \DUPLICATE\   | :      |
| 5F      | 45    | 54   | 41  | 4.5         | 52   | 45   | 54   | 45             | 41   | 5.5  |      | /.E | 45       |                         | U.260: .BLKB                           | 0   |        |
| ,,      | ٠,    | ,4   | 41  | 4E          | 52   | 45   | 54   | 40             | -11  | 31   | 52   | 41  | 45       | 001D2                   | U.262: ASCII                           | \END_ALTERNATE_CHAR\  |        |
|         |       |      |     |             |      |      |      |                |      |      |      |     | FF       | 001E1<br>001E4<br>001E5 | :TPASKEYSTO                            | -1  | :      |
|         |       |      |     |             |      |      |      |                |      |      |      |     |          |                         | U.267: .BLKB                           | 0   |        |

SI 1.

| MG<br>-0 | SSTR<br>03 | ING_ | TABL | TPAR     | SE | tabl<br>CON | es f | or | strin | g ca | pabi | liti | es | char     | acte 1                  | 9<br>5-Sep-1984 01:22:35<br>5-Sep-1984 13:10:04   | VAX-11 Bliss-32 V4.0-742<br>CSMGRTL.SRCJSMGSTRTAB.B32;1 | Page 1 |
|----------|------------|------|------|----------|----|-------------|------|----|-------|------|------|------|----|----------|-------------------------|---|---|--------|
|          |            |      |      |          |    | 48          | 4E   | 49 |       | 42   | 5F   | 44   | 4E | 45       | 001E5                   | ; TPASKEYST                                       |   |        |
|          |            |      |      |          |    |             |      |    |       |      |      |      |    | FF       | 001EE                   | :TPASKEYSTO                                       | ND_BLINK\   | :      |
|          |            |      |      |          |    |             | 44   | 40 | 4F    | 42   | 5F   | 44   | 4E | 45       | 001EF                   | U.274: BLKB 0                                     |   |        |
|          |            |      |      |          |    |             |      |    |       |      |      |      |    | FF       | 001F7<br>001F8          | U.276: ASCII \E<br>BYTE -1<br>;TPA\$KEYSTO        | ND_BOLD\  | !      |
| ,        | 44         | 4F   | 40   | 5F       | 45 | 54          | 45   | 40 | 45    | 44   | 5F   | 44   | 4E | 45       | 001F8                   | U.281: BLKB 0                                     |   |        |
|          |            |      |      |          |    |             |      |    |       |      |      |      |    | FF       | 00207                   | U.283: ASCII \E<br>BYTE -1;<br>TPA\$KEYSTO        | ND_DELETE_MODE\   | - 1    |
|          | 44         | 4F   | 4D   | 5F       | 54 | 52          | 45   | 53 | 4E    | 49   | 5F   | 44   | 4E | 45       | 00208                   | U.288: BLKB 0                                     |   |        |
|          |            |      |      |          |    |             |      |    |       |      |      |      |    | FF       | 00217                   | U.290: ASCII \E                                   | END_INSERT_MODE\  | :      |
|          | 49         | 57   | 41   | 52       | 44 | 5F          | 45   | 4E | 49    | 40   | SE   | 44   | 45 | 45       | 00218                   | :TPASKEYSTO<br>U.295: .BLKB 0<br>:TPASKEYST       |   |        |
|          |            |      |      | <i>"</i> | •  | •           | 7,   | 1  | 52    | 41   | 48   | 43   | 5F | 47       | 00227                   |   | END_LINE_DRAWING_CHAR\                                  |        |
|          |            |      |      |          |    |             |      |    |       |      |      |      |    | FF       | 0022D                   | :TPASKEYSTO -1                                    |   | ;      |
|          |            |      |      | 45       | 53 | 52          | 45   | 56 | 45    | 52   | 5F   | 44   | 4E | 45       | 0022E                   | U.302: .BLKB 0<br>;TPA\$KEYST<br>U.304: .ASCII \E | END DEVEDSEL  |        |
|          |            |      |      |          |    |             |      |    |       |      |      |      |    | FF       | 00239<br>0023A          | :TPASKEYSTO -1                                    | END_REVERSE\  | :      |
|          | 45         | 52   | 4F   | 43       | 53 | 52          | 45   | 44 | 4E    | 55   | 5F   | 44   | 4E | 45       | 0023A                   | U.309: .BLKB 0; TPA\$KEYST                        | **** *********************************                  |        |
|          |            |      |      |          |    |             |      |    |       |      |      |      |    | FF       | 00248<br>00249          | :TPASKEYSTO                                       | ND_UNDERSCORE\  | :      |
| ,        | 44         | 5F   | 44   | 4E       | 45 | 5F          | 4F   | 54 | 5F    | 45   | 53   | 41   | 52 | 45       | 00249                   | ;TPASKEYST  |   |        |
|          |            |      |      |          |    |             |      |    |       | 59   | 41   | 40   | 50 | 53<br>FF | 00258                   | U.318: .ASCII \E                                  | RASE_TO_END_DISPLAY\                                    | :      |
|          |            |      |      |          |    |             |      |    |       |      |      |      |    | "        | 0025D<br>0025E          | :TPASKEYSTO<br>U.323: BLKB 0                      |   |        |
|          | 40         | 5F   | 44   | 4E       | 45 | 5F          | 4F   | 54 | 5F    | 45   | 53   | 41   | 52 | 45       | 0025E                   | ; TPA\$KEYST                                      | RASE_TO_END_LINE\                                       | ;      |
|          |            |      |      |          |    |             |      |    |       |      |      |      | 45 | 4E<br>FF | 0026D<br>0026F<br>00270 | .BYTE -1  |   | :      |
| 3        | 49         | 44   | 5F   | 45       | 40 | 4F          | 48   | 57 | 5F    | 45   | 53   | 41   | 52 | 45       | 00270                   | ;TPA\$KEYSTO<br>U.330: .BLKB 0<br>;TPA\$KEYST     |   |        |
|          |            |      |      |          |    |             |      |    |       |      | 59   | 41   | 40 | 50<br>FF | 0027F<br>00283          | U.332: .ASCII \E                                  | RASE_WHOLE_DISPLAY\                                     |        |
|          |            |      |      |          |    |             |      |    |       |      |      |      |    | FF       | 00283                   | :TPASKEYSTO<br>U.337: .BLKB 0                     |   | •      |
|          | 49         | 40   | 5F   | 45       | 40 | 4F          | 48   | 57 | 5F    | 45   | 53   | 41   | 52 | 45       | 00284                   | ; TPA\$KEYST                                      | RASE_WHOLE_LINE\  | ,      |
|          |            |      |      |          |    |             |      |    |       |      |      |      |    | 45       | 00293                   |   |   | ;      |

| 03 |    |    | CON | VERT | CON | TROL | -  | conve | řt | to | cont | rol |    | 16-Sep-1984 01:22:35 VAX-11 Bliss-32 V4.0-742 CSMGRTL.SRCJSMGSTRTAB.B32;1  | Page ( |
|----|----|----|-----|------|-----|------|----|-------|----|----|------|-----|----|--|--------|
|    |    |    |     |      |     |      |    |       |    |    |      |     | FF | 00294<br>00295 : TPASKEYSTO  | •      |
|    |    |    |     | 43   | 49  | 48   | 50 | 41    | 52 | 47 | 5F   | 46  | 46 | 00295 : TPA\$KEYST<br>0.346: .ASCII \FF_GRAPHIC\                           |        |
|    |    |    |     |      |     |      |    |       |    |    |      |     | FF | 0029F .BYTE -1   |        |
|    |    |    |     |      |     |      |    |       |    | 45 | 40   | 4F  | 48 | 002AO ;TPASKEYST   |        |
|    |    |    |     |      |     |      |    |       |    |    |      |     | FF | 002A4 BYTE -1 HOME \ 002A5 : TPA\$KEYSTO                                   |        |
| 52 | 41 | 42 | 5F  | 40   | 41  | 54   | 4E | 4F    | 5A | 49 | 52   | 4F  | 48 | 002A5 : TPA\$KEYSTO<br>U.358: .BLKB 0<br>002A5 : TPA\$KEYST                |        |
|    |    |    |     |      |     |      |    | ï     | ,, | "  | ,,   | "   | FF | 002B3 U.360: ASCII \HORIZONTAL_BAR\  |        |
|    |    |    |     |      |     |      |    |       |    |    |      |     |    | 002B4 : TPA\$KEYSTO<br>U.365: .BLKB 0                                      |        |
|    |    |    |     | 43   | 49  | 48   | 50 | 41    | 52 | 47 | 5F   | 54  | 48 | 002B4 :TPASKEYST<br>U.367: .ASCII \HT_GRAPHIC\                             |        |
|    |    |    |     |      |     |      |    |       |    |    |      |     | FF | 002BE .BYTE -1<br>002BF :TPA\$KEYSTO<br>U.372: .BLKB 0                     |        |
|    |    |    |     |      |     |      |    |       | 58 | 45 | 44   | 4E  | 49 | 002BF : TPASKEYST U.374: .ASCII \INDEX\                                    |        |
|    |    |    |     |      |     |      |    |       |    |    |      |     | FF | 002C4 :TPA\$KEYSTO -1  |        |
|    |    |    | 47  | 4E   | 49  | 52   | 54 | 53    | 5F | 54 | 49   | 4E  | 49 | 002C5 :TPA\$KEYST  |        |
|    |    |    |     |      |     |      |    |       |    |    |      |     | FF | 002D0 BYTE -1 O02D1 ; TPA\$KEYSTO  |        |
|    |    |    | 52  | 41   | 48  | 43   | 5F | 54    | 52 | 45 | 53   | 4E  | 49 | 0.386: .BLKB 0<br>002D1 :TPA\$KEYST  |        |
|    |    |    |     |      |     |      |    |       |    |    |      |     | FF | 002DC .ASCII \INSERT_CHAR\ BYTE -1   |        |
|    |    |    | 45  | 4E   | 49  | 40   | 5F | 54    | 52 | 45 | 53   | 4E  | 49 | 002DD :TPASKEYSTO<br>U.393: .BLKB 0<br>002DD :TPASKEYST                    |        |
|    |    |    | 7,  | 7.   | 77  | 70   | ,, | ,,    | ,, | 7, | ,,   | 7.  | FF | U.395: .ASCII \INSERT LINE\  |        |
|    |    |    |     |      |     |      |    |       |    |    |      |     |    | UUZEY : IPASKEYSIU   |        |
|    |    |    |     | 44   | 41  | 50   | 5F | 54    | 52 | 45 | 53   | 4E  | 49 | U.400: BLKB 0  002E9: TPA\$KEYST U.402: .ASCII \INSERT_PAD\ 002F3 .BYTE -1 |        |
|    |    |    |     |      |     |      |    |       |    |    |      |     | FF | 002F3 BYTE -1<br>002F4 :TPA\$KEYSTO<br>U.407: .BLKB 0                      |        |
|    |    |    |     |      |     |      |    |       | 30 | 5F | 59   | 45  | 48 | UUZF4 : IPASKEYSI  |        |
|    |    |    |     |      |     |      |    |       |    |    |      |     | FF | 002FA : TPASKEYSTO   |        |
|    |    |    |     |      |     |      |    |       | 31 | 5F | 59   | 45  | 4B | 0.414: BLKB 0<br>002FA : TPASKEYST   |        |
|    |    |    |     |      |     |      |    |       |    |    |      |     | FF | 0.416: .ASCII \KEY_1\ 002FF  |        |

SI 1.

| MG\$STRING_TABL<br>-003 | TPA | RSE | _CON | es f | or s | strin<br>Conve | g ca | pabi | liti | es | char | C 10<br>16-Sep-1984 01:22:35 VAX-11 Bliss-32 V4.0-742<br>cte 14-Sep-1984 13:10:04 [SMGRTL.SRC]SMGSTRTAB.B32;1 | Page 1 |
|-------------------------|-----|-----|------|------|------|----------------|------|------|------|----|------|---|--------|
|                         |     |     |      |      |      |                | 32   | 5F   | 59   | 45 | 4B   | 00300 ; TPASKEYST   |        |
|                         |     |     |      |      |      |                |      |      |      |    | FF   | 00305 U.423: ASCII \KEY_2\ BYTE -1  | 1      |
|                         |     |     |      |      |      |                |      |      |      |    |      | 00306 ; TPA\$KEYSTO<br>U.428: .BLKB 0   |        |
|                         |     |     |      |      |      |                | 33   | 5F   | 59   | 45 | 48   | 00306 : TPA\$KEYST<br>0.430: .ASCII \KEY_3\<br>0030B .BYTE -1   |        |
|                         |     |     |      |      |      |                |      |      |      |    | FF   | 0030B .BYTE -1<br>0030C :TPA\$KEYSTO<br>U.435: .BLKB 0  |        |
|                         |     |     |      |      |      |                | 34   | 5F   | 59   | 45 | 4B   | 0030C :TPASKEYST .ASCII \KEY_4\   |        |
|                         |     |     |      |      |      |                |      |      |      |    | FF   | 00311 BYTE -1   |        |
|                         |     |     |      |      |      |                | 35   | 5F   | 59   | 45 | 4B   | 00312 :TPA\$KEYST   |        |
|                         |     |     |      |      |      |                |      |      |      |    | FF   | 0.444: .ASCII \KEY_5\ 00317 .TPASEEYSTO   | 1      |
|                         |     |     |      |      |      |                | 36   | 5F   | 59   | 45 | 4B   | 00318 ;TPA\$KEYST0<br>0.449: .BLKB 0<br>00318 ;TPA\$KEYST   |        |
|                         |     |     |      |      |      |                | 50   |      | •    | 17 | FF   | 0031D .BYTE -1  | •      |
|                         |     |     |      |      |      |                |      |      |      |    |      | 0031E ;TPA\$KEYST0<br>U.456: .BLKB 0  |        |
|                         |     |     |      |      |      |                | 37   | 5F   | 59   | 45 | 48   | 0031E : TPA\$KEYST<br>0.458: .ASCII \KEY_7\<br>00323 .BYTE -1   |        |
|                         |     |     |      |      |      |                |      |      |      |    | FF   | 00323 .BYTE -1<br>00324 :TPA\$KEYSTO<br>U.463: .BLKB 0  |        |
|                         |     |     |      |      |      |                | 38   | 5F   | 59   | 45 | 48   | 00324 ; TPA\$KEYST  |        |
|                         |     |     |      |      |      |                |      |      |      |    | FF   | 00329 BYTE -1<br>0032A :TPA\$KEYSTO   |        |
|                         |     |     |      |      |      |                | 39   | 5F   | 59   | 45 | 4B   | 0.470: .BLKB 0<br>0032A ;TPA\$KEYST   |        |
|                         |     |     |      |      |      |                |      |      |      |    | FF   | 0.472: .ASCII \KEY_9\ 0032F .BYTE -1 00330 ;TPA\$KEYSTO   |        |
| 45 43                   | 41  | 50  | 53   | 4B   | 43   | 41             | 42   | 5F   | 59   | 45 | 4B   | 00330 ; TPA\$KEYSTO<br>0.477: .BLKB 0<br>00330 ; TPA\$KEYST   |        |
|                         |     |     |      |      |      |                |      |      |      |    | FF   | 0033D .ASCII \KEY_BACKSPACE\  | 1      |
|                         |     |     |      |      |      |                |      |      |      |    |      | U.484: .BLKB 0  |        |
|                         |     |     | 41   | 40   | 40   | 4F             | 43   | 5F   | 59   | 45 | 48   | 0033E :TPASKEYST<br>U.486: .ASCII \KEY_COMMA\   |        |
|                         |     |     |      |      |      |                |      |      |      |    | FF   | 00347<br>00348 :TPA\$KEYSTO<br>U.491: .BLKB 0   |        |
| 57 4F 52                | 52  | 41  | 5F   | 4E   | 57   | 4F             | 44   | 5F   | 59   | 45 | 4B   | 00348 ;TPA\$KEYST<br>U_493: _ASCII \KEY DOWN ARROW\   |        |
|                         |     |     |      |      |      |                |      |      |      |    | FF   | 00356 BYTE -1<br>00357 ;TPA\$KEYSTO   |        |
|                         |     |     |      |      |      | 31             | 45   | 5F   | -59  | 45 | 4B   | U.498: .BLKB 0<br>00357 ;TPA\$KEYST   |        |

| SMG\$STRING_TABL | TPARSE tables for CONVERT_CONTROL - | string of | apabi<br>* to | liti | es<br>rol | char     | D 10<br>16-Sep-1984 01:22<br>acte 14-Sep-1984 13:10  | :35 VAX-11 Bliss-32 V4.0-742<br>:04 [SMGRTL.SRC]SMGSTRTAB.B32;1 | Page 19 (4) |
|------------------|-------------------------------------|-----------|---------------|------|-----------|----------|--|---|-------------|
|                  |                                     |           |               |      |           | FF       | 0035D U.500: .ASCII<br>0035E :TPA\$KEYSTO<br>U.505: .BLKB  | \KEY_E1\ -1   | ;           |
|                  |                                     | 32 45     | 5 F           | 59   | 45        | 4B       | U.507: ASCII   | /kea_es/  |             |
|                  |                                     |           |               |      |           | FF       | 00364<br>00365 :TPA\$KEYSTO<br>U.512: .BLKB  | -1  |             |
|                  |                                     | 33 45     | 5 F           | 59   | 45        | 4B       | 00565 : TPASKEYST  | 0   |             |
|                  |                                     |           |               |      |           | FF       | 0036B  | \KEY_E3\  | 1           |
|                  |                                     | 34 45     | 5 F           | 59   | 45        | 4B       | 0036C :TPASKEYST   | 0   |             |
|                  |                                     |           |               |      |           | FF       | 0.521: .ASCII<br>00372 .BYTE<br>00373 ;TPA\$KEYSTO   | \KEY_E4\  |             |
|                  |                                     | 35 45     | 5 F           | 59   | 45        | 4B       | 0.526: .BLKB   | 0   |             |
|                  |                                     |           |               |      |           | FF       | 00379 U.528: .ASCII  | \KEY_E5\  |             |
|                  |                                     | 36 45     | 5 F           | 59   | 45        | 48       | 0037A : TPASKEYSTO<br>U.533: BLKB<br>0037A : TPASKEYST   | 0   |             |
|                  |                                     | 30 13     |               |      | "         | FF       | 00380 U.535: .ASCII  | \KEY_E6\  |             |
|                  | 52 45 5                             | 4 4E 45   |               | 50   | 15        | 40       | 00381 ; TPA\$KEYSTO<br>U.540: .BLKB  | 0   |             |
|                  | 52 45 5                             | 4 4E 45   | 5F            | 59   | 45        | 4B<br>FF | 00381 :TPA\$KEYST<br>U.542: .ASCII<br>0038A .BYTE  | \KEY_ENTER\   | :           |
|                  |                                     |           |               |      |           |          | 0038A .BYTE<br>0038B :TPA\$KEYSTO<br>U.547: .BLKB<br>0038B :TPA\$KEYST                                 | 0   |             |
|                  |                                     | 31 46     | ) )F          | 59   | 45        | 4B<br>FF | 0038B : TPASKEYST<br>0.549: .ASCII<br>00391 .BYTE  | \KEY_F1\  | :           |
|                  |                                     |           |               |      |           |          | 00392 ; TPA\$KEYSTO  | 0   |             |
|                  |                                     | 32 46     | 5F            | 59   | 45        | 48       | 00392 ; TPASKEYST  | \KEY_F2\  | :           |
|                  |                                     |           |               |      |           | FF       | 00398 .BYTE<br>00399 :TPA\$KEYSTO<br>U.561: .BLKB  | 0   | 78 ·        |
|                  |                                     | 33 46     | 5F            | 59   | 45        | 4B       | 00399 :TPASKEYST<br>U.563: .ASCII  |   |             |
|                  |                                     |           |               |      |           | FF       | 00399 :TPA\$KEYST<br>0.563: .ASCII<br>0039F<br>003A0 :TPA\$KEYSTO<br>0.568: .BLKB<br>003A0 :TPA\$KEYST | -1 -  |             |
|                  |                                     | 34 46     | 5F            | 59   | 45        | 4B       | 003A0 :TPASKEYST U.570: ASCII  | \KEY_F4\  |             |
|                  |                                     |           |               |      |           | FF       | 003A6<br>003A7 :TPA\$KEYSTO<br>U.575: .BLKB  | [-]   |             |
|                  |                                     | 35 46     | 5 F           | 59   | 45        | 4B       | 003A7 :TPASKEYST   | 0   |             |
|                  |                                     |           |               |      |           | FF       | 003AD U.577: ASCII   | \KEY_F5\  | :           |

| -003 CO | PARSE tables for DNVERT_CONTROL - | strin<br>Conve | g ca | pabi | liti | es | char | E 10<br>16-Sep-1984 01:22<br>acte 14-Sep-1984 13:10 | 2:35 VAX-11 Bliss-32 V4.0-742<br>0:04 [SMGRTL.SRC]SMGSTRTAB.B32;1 | Page 2 |
|---------|-----------------------------------|----------------|------|------|------|----|------|---|---|--------|
|         |                                   |                |      |      |      |    |      | 003AE ;TPA\$KEYSTO                                  | 0   |        |
|         |                                   | 36             | 46   | 5F   | 59   | 45 | 48   | 003AE :TPASKEYST<br>U.584: ASCII                    | \KEY_F6\  |        |
|         |                                   |                |      |      |      |    | FF   | 003B4 U.584: ASCII<br>003B5 ;TPA\$KEYSTO            | -1  |        |
|         |                                   | 37             | 46   | 5F   | 59   | 45 | 48   | U.589: BLKB   | 0   |        |
|         |                                   |                |      |      |      |    | FF   | 003BB U.591: ASCII                                  | \KEY_F7\  | 1      |
|         |                                   |                |      |      |      |    |      | 003BC :TPASKEYSTO                                   | 0   |        |
|         |                                   | 38             | 46   | 5F   | 59   | 45 | 48   | 003BC ; TPASKEYST                                   | \KEY_F8\  |        |
|         |                                   |                |      |      |      |    | FF   | 003C2 .BYTE   | -1  | •      |
|         |                                   | 39             | 46   | 5F   | 59   | 45 | 4B   | 003C3 ;TPASKEYST                                    | 0   |        |
|         |                                   |                |      |      |      |    | FF   | 003C9 U.605: .ASCII                                 | \KEY_F9\  |        |
|         |                                   |                |      |      |      |    |      | 003CA :TPASKEYSTO U.610: BLKB                       | 0   |        |
|         | 30                                | 31             | 46   | 5F   | 59   | 45 | 4B   | 003CA :TPASKEYST<br>U.612: .ASCII                   | \KEY_F10\   | ,      |
|         |                                   |                |      |      |      |    | FF   | 003D1 .BYTE   | -1 -  |        |
|         | 31                                | 31             | 46   | 5F   | 59   | 45 | 4B   | 0.617: .BLKB  | 0   |        |
|         |                                   |                |      |      |      |    | FF   | 003D9 U.619: ASCII                                  | \KEY_F11\<br>-1   |        |
|         |                                   |                |      |      |      |    |      | 003DA :TPA\$KEYSTO<br>U.624: .BLKB                  | 0   |        |
|         | 32                                | 31             | 46   | 5F   | 59   | 45 |      | 003DA :TPA\$KEYST<br>U.626: .ASCII<br>003E1 .BYTE   | \KEY_F12\   | :      |
|         |                                   |                |      |      |      |    | FF   | OOSEZ : TPASKEYSTO                                  |   | ;      |
|         | 33                                | 31             | 46   | 5F   | 59   | 45 | 4B   | 0.631: .BLKB  | 0   |        |
|         |                                   |                |      |      |      |    | FF   | 003E9 U.635: .ASCII                                 | \KEY_F13\   |        |
|         |                                   | _              |      |      |      |    |      | U.638: .BLKB  | 0   |        |
|         | 34                                | 31             | 46   | 5F   | 59   | 45 | 4B   | U.640: ASCII  | \KEY_F14\   | ;      |
|         |                                   |                |      |      |      |    | FF   | 003F1 .BYTE<br>003F2 :TPA\$KEYSTO<br>U.645: .BLKB   | -1  | •      |
|         | 35                                | 31             | 46   | 5F   | 59   | 45 | 4B   | UUSTZ ; IPABKETSI                                   | 0   |        |
|         |                                   |                |      |      |      |    | FF   | 003F9 U.647: ASCII                                  | \KEY_F15\   |        |
|         |                                   |                |      |      |      |    |      | 003FA :TPASKEYSTO U.652: BLKB                       | 0   |        |
|         | 36                                | 51             | 46   | 5F   | 59   | 45 | 48   | U.654: ASCII  | \KEY_F16\   | :      |
|         |                                   |                |      |      |      |    | FF   | 00401<br>00402 :TPA\$KEYSTO<br>U.659: .BLKB         | -1  |        |

| SSTRING_TABL | TPARSE<br>CONVER | tabl | es fo | or : | strin<br>Conve | gca | pabi | Liti | es | char | F 10<br>16-Sep<br>acte 14-Sep | -1984 01:22<br>-1984 13:10 | 2:35 VAX-11 Bliss-32 V4.0-742<br>0:04 [SMGRTL.SRC]SMGSTRTAB.B32:1 | Page ( |
|--------------|------------------|------|-------|------|----------------|-----|------|------|----|------|-------------------------------|----------------------------|---|--------|
|              |                  |      |       | 37   | 31             | 46  | 5F   | 59   | 45 | 4B   | 00402 :TPA                    | SKEYST<br>1: .ASCII        | \KEY_F17\   |        |
|              |                  |      |       |      |                |     |      |      |    | FF   | 00409<br>0040A ; TPA          | SKEYSTO BYTE               | -1  | 1      |
|              |                  |      |       | 38   | 31             | 46  | 5F   | 59   | 45 | 4B   | 0040A ; TPA                   | SKEYST                     | 0<br>\KEY_F18\  |        |
|              |                  |      |       |      |                |     |      |      |    | FF   | 00411<br>00412 ; TPA          | BYTE .BYTE                 | -1  | :      |
|              |                  |      |       | 39   | 31             | 46  | 5F   | 59   | 45 | 4B   | 00412 :TPA                    | SKEYST                     | 0<br>\KEY_F19\  |        |
|              |                  |      |       |      |                |     |      |      |    | FF   | 00419<br>0041A ; TPA          | SKEYSTO BYTE               | -1  | ;      |
|              |                  |      |       | 30   | 32             | 46  | 5F   | 59   | 45 | 4B   | 0041A ; TPA<br>U.68           | SKEYST                     | 0<br>\KEY_F20\  |        |
|              |                  |      |       | -    |                |     |      |      |    | FF   | 00421<br>00422 : TPA          | BYTE .BYTE                 | -1  | ;      |
| 57 4F 52     | 52 41            | 5F   | 54    | 46   | 45             | 40  | 5F   | 59   | 45 | 4B   | 00422 :TPA                    | SKEYST                     | 0   |        |
|              |                  |      |       |      |                |     |      |      |    | FF   | 00430<br>00431 ;TPA           | SKEYSTO                    | \KEY_LEFT_ARROW\  | :      |
|              |                  | 53   | 55    | 4E   | 49             | 4D  | 5F   | 59   | 45 | 4B   | 00431 ;TPA                    | SKEYST                     | 0   |        |
|              |                  |      |       |      |                |     |      |      |    | FF   | 0043A<br>0043B ; TPA          | SKEYSTO                    | -1 -1 -1  | :      |
|              | 44               | 4F   | 49    | 52   | 45             | 50  | 5F   | 59   | 45 | 4B   | 0043B ; TPA                   | 1: .BLKB                   | 0   |        |
|              |                  |      |       |      |                |     |      |      |    | FF   | 00445<br>00446 ;TPA           | BKEYSTO BYTE               | \KEY_PERIOD\  | 1      |
|              |                  |      |       | 31   | 46             | 50  | 5F   | 59   | 45 | 4B   | 00446 ;TPA                    | S: .BLKB                   | 0<br>\rev BE1\  |        |
|              |                  | i"   |       |      |                |     |      |      |    | FF   | 0044D<br>0044E ; TPA          | BKEYSTO BKEYSTO            | \KEY_PF1\   |        |
|              |                  |      |       | 32   | 46             | 50  | 5F   | 59   | 45 | 4B   | 0044E ;TPA                    | EKEYST                     | 0   |        |
|              |                  |      |       |      |                |     |      |      |    | FF   | 00455<br>00456 : TPA          | ASCII<br>BYTE<br>KEYSTO    | \KEY_PF2\   |        |
|              |                  |      |       | 33   | 46             | 50  | 5F   | 59   | 45 | 4B   | U.72                          | EKEYST                     | 0   |        |
|              |                  |      |       |      |                |     |      |      |    | FF   | 0045D<br>0045E : TPA          | BYTE .BYTE                 | \KEY_PF3\   | :      |
|              |                  |      |       | 34   | 46             | 50  | 5F   | 59   | 45 | 4B   | 0045E ; TPA                   | KEYST                      | 0   |        |
|              |                  |      |       |      |                |     |      |      |    | FF   | 00465<br>00466 ; TPA          | KEYSTO BYTE                | \KEY_PF4\   | ;      |
| 4F 52 52     | 41 5F            | 54   | 48    | 47   | 49             | 52  | 5F   | 59   | 45 | 4B   | U.73                          | S: .BLKB                   | 0   |        |

| SMG\$STRING_TAB | BL T | PAR   | RSE | tabl | es f | or | stri  | ng ca | pabi | liti | es  |          | 16             | 10<br>-Sep-1984 0                         | 1:22:       | 2:35 VAX-11 Bliss-32 V4.0-742    | Page 2 |
|-----------------|------|-------|-----|------|------|----|-------|-------|------|------|-----|----------|----------------|---|-------------|----------------------------------|--------|
| 1 003           | ľ    | .0.44 | LNI |      | INOL |    | COIIV |       |      | Conc | 100 | FF       |                |   | 3:10:<br>TE | ):04 [SMGRTL.SRC]SMGSTRTAB.B32;1 | ;      |
|                 |      |       |     |      |      |    |       |       |      |      |     |          | 00476          | TPASKEYSTO                                | KB          | 0                                |        |
| 57              | 4    | F     | 52  | 52   | 41   | 5F | 50    | 55    | 5F   | 59   | 45  | 48       | 00476          | TPASKEYST                                 |             | \KEY_UP_ARROW\                   |        |
|                 |      |       |     |      |      |    |       |       |      |      |     | FF       | 00482          | TPASKEYSTO                                | TE          | -1                               | :      |
|                 |      |       |     |      | 31   | 46 | 5F    | 40    | 45   | 42   | 41  | 40       |                | J.750: BL                                 | KB          | 0                                |        |
|                 |      |       |     |      |      |    |       |       |      |      |     | FF       | 0048B          | J.752: .AS                                | TE          | \LABEL_F1\                       |        |
|                 |      |       |     |      |      |    |       |       |      |      |     |          | 0048C          | J.757: .BL                                | KB          | 0                                |        |
|                 |      |       |     |      | 32   | 46 | 5F    | 40    | 45   | 42   | 41  | 40       | 00480          | TPASKEYST                                 |             | \LABEL_F2\                       | :      |
|                 |      |       |     |      |      |    |       |       |      |      |     | FF       | 00494          | TPASKEYSTO                                | )           | •1                               | •      |
|                 |      |       |     |      | 33   | 46 | 5F    | 40    | 45   | 42   | 41  | 40       | 00495          | 1.764: BL                                 |             | 0                                |        |
|                 |      |       |     |      |      |    |       |       |      |      |     | FF       | 0049D          | .BY                                       | TE          | \LABEL_F3\                       |        |
|                 |      |       |     |      | 34   | 46 | 5F    | 40    | 45   | 42   | 41  | 40       |                | ;TPA\$KEYSTO<br>J.771: .BL<br>;TPA\$KEYST | KB          | 0                                |        |
|                 |      |       |     |      | 74   | 40 | ,,    | 70    | 7,   | 46   | 71  | FF       | 0047E          | J.773: .AS                                | CII         | \LABEL_F4\                       |        |
|                 |      |       |     |      |      |    |       |       |      |      |     |          | 004A7          | TPASKEYSTO                                | )           | 0                                | •      |
|                 |      |       |     |      | 35   | 46 | 5F    | 40    | 45   | 42   | 41  | 40       | 004A7          | TPASKEYST                                 |             | \LABEL_F5\                       |        |
|                 |      |       |     |      |      |    |       |       |      |      |     | FF       | 004AF          | TPASKEYSTO                                | TE          | -1                               | :      |
|                 |      |       |     |      | 36   | 46 | 5F    | 40    | 45   | 42   | 41  | 40       | 004B0          | J.785: .BL                                | KB          | 0                                |        |
|                 |      |       |     |      |      |    |       |       |      |      |     | FF       | 004B8          | J.787: .AS<br>.BY                         | TE          | \LABEL_F6\                       | 1      |
|                 |      |       |     |      |      |    |       |       |      |      |     |          | 004B9          | TPASKEYSTO                                | KB          | 0                                |        |
|                 |      |       |     |      | 37   | 46 | 5F    | 40    | 45   | 42   | 41  | 40       | 00489          | 1.794: .AS                                | CII         | \LABEL_F7\                       | :      |
|                 |      |       |     |      |      |    |       |       |      |      |     | FF       | 004C1<br>004C2 | TPASKEYSTO                                | IE          | -1                               | •      |
|                 |      |       |     |      | 38   | 46 | 5F    | 40    | 45   | 42   | 41  | 40       | 004C2          | 1.799: BL                                 |             | 0                                |        |
|                 |      |       |     |      |      |    |       |       |      |      |     | FF       | 004CA          | .BY                                       | TE          | \LABEL_F8\                       | :      |
|                 |      |       |     |      | 39   | 46 | 5F    | 40    | 45   | 42   | 41  | 4.0      | 00408          | TPASKEYSTO<br>J.806: .BL<br>TPASKEYST     | KB          | 0                                |        |
|                 |      |       |     |      | 37   | 40 | ,,    | 40    | 7,   | 42   | 41  | 4C<br>FF | 004CB          | 1.808: .AS                                | CII         | \LABEL_F9\                       | i      |
|                 |      |       |     |      |      |    |       |       |      |      |     |          | 004D4          | TPASKEYSTO                                |             | 0                                |        |
|                 |      |       |     | 30   | 31   | 46 | 5F    | 40    | 45   | 42   | 41  | 40       | 004D4          | TPASKEYST                                 |             | \LABEL_F10\                      |        |
|                 |      |       |     |      |      |    |       |       |      |      |     | FF       | 004DD          | TPASKEYSTO                                | TE          | -1                               |        |

S

| SMG\$STRING_TABL | TPAR | RSE | tabl<br>CON | es f | or_ | stri | ng ca | pabi | liti | es | char     | H 10<br>16-Sep-1984 01:22:35 VAX-11 Bliss-32 V4.0-742<br>cte 14-Sep-1984 13:10:04 [SMGRTL.SRC]SMGSTRTAB.B32;1 | Page 2 |
|------------------|------|-----|-------------|------|-----|------|-------|------|------|----|----------|---|--------|
|                  |      |     | 31          | 31   | 46  | 5F   | 40    | 45   | 42   | 41 | 40       | U.820: BLKB 0   |        |
|                  |      |     |             |      |     |      |       |      |      |    | FF       | 0.822: .ASCII \LABEL_F11\   | 1      |
|                  |      |     | 72          | 71   | ,,  |      | ,,    | , ,  | 12   | ,, |          | 004E8 : TPA\$KEYSTO<br>U.827: BLKB 0<br>004E8 : TPA\$KEYST  |        |
|                  |      |     | 32          | 31   | 46  | 5F   | 40    | 45   | 42   | 41 | 4C<br>FF | 0.829: .ASCII \LABEL_F12\   |        |
|                  |      |     |             |      |     |      |       |      |      |    |          | 004F2 :TPA\$KEYST0<br>U.834: .BLKB 0  |        |
|                  |      |     | 33          | 31   | 46  | 5F   | 40    | 45   | 42   | 41 | 40       | U.836: .ASCII \LABEL_F13\   |        |
|                  |      |     |             |      |     |      |       |      |      |    | FF       | 004FB BYTE -1<br>004FC :TPASKEYSTO  | ,      |
|                  |      |     | 34          | 31   | 46  | 5F   | 40    | 45   | 42   | 41 | 40       | UU4FC ; IPABREYSI   |        |
|                  |      |     |             |      |     |      |       |      |      |    | FF       | 0.843: .ASCII \LABEL_F14\ 00505   |        |
|                  |      |     | 35          | 31   | 46  | 5F   | 40    | 45   | 42   | 41 | 40       | U.848: .BLKB 0<br>00506 ;TPA\$KEYST   |        |
|                  |      |     |             |      |     |      |       |      |      |    | FF       | 0.850: .ASCII \LABEL_F15\ 0050F .BYTE -1  |        |
|                  |      |     | 36          | 31   | 46  | 5F   | 40    | 45   | 42   | 41 | 40       | 00510 :TPA\$KEYST0<br>U.855: .BLKB 0<br>00510 :TPA\$KEYST   |        |
|                  |      |     | 30          | "    | 70  | ,,   | 70    | 7,   | 76   | •  | FF       | 00510 :TPA\$KEYST<br>U.857: .ASCII \LABEL_F16\<br>00519 .BYTE -1  |        |
|                  |      |     |             |      |     |      |       |      |      |    |          | 0051A : TPA\$KEYSTO<br>U.862: .BLKB 0   |        |
|                  |      |     | 37          | 31   | 46  | 5F   | 40    | 45   | 42   | 41 | 40       | 0051A :TPA\$KEYST<br>U.864: .ASCII \LABEL F17\  |        |
|                  |      |     |             |      |     |      |       |      |      |    | FF       | 00523 .BYTE -1<br>00524 :TPA\$KEYSTO<br>U.869: .BLKB 0  | •      |
|                  |      |     | 38          | 31   | 46  | 5F   | 40    | 45   | 42   | 41 | 40       | U.871: ASCII \LABEL F18\  |        |
|                  |      |     |             |      |     |      |       |      |      |    | FF       | 0052D BYTE -1   |        |
|                  |      |     | 39          | 31   | 46  | 5F   | 40    | 45   | 42   | 41 | 40       | U.876: .BLKB 0<br>0052E ;TPA\$KEYST   |        |
|                  |      |     |             |      |     |      |       |      |      |    | FF       | U.878: .ASCII \LABEL_F19\ 00537   |        |
|                  |      |     | 30          | 32   | 46  | 5F   | 40    | 45   | 42   | 41 | 40       | 00538 :TPA\$KEYSTO<br>U.883: BLKB 0<br>00538 :TPA\$KEYST  |        |
|                  |      |     |             |      |     |      |       |      |      |    | FF       | 0.885: ASCII \LABEL_F20\ 0.541 .BYTE -1   | 1      |
|                  |      |     |             | ,,   |     | .,   |       | .,   | .,   | ,, |          | 00542 :TPA\$KEYSTO<br>U.890: "BLKB 0  |        |
|                  | 52   | 41  | 48          | 43   | 5F  | 54   | 5F    | 54   | 46   | 45 | 40       | 00542 : TPA\$KEYST<br>U.892: .ASCII \LEFT_T_CHAR\<br>0054D .BYTE -1   | ·      |
|                  |      |     |             |      |     |      |       |      |      |    | FF       | 0054D   |        |
|                  |      | 43  | 49          | 48   | 50  | 41   | 52    | 47   | 5F   | 46 | 40       | 0054E ;TPASKEYST  |        |

| -00 | 3 TR | ING_ | TABL | CON | RSE<br>VERT | _CON | es f | or : | conve | g ca | pabi<br>to | liti | rol | char     | acte 1         | I 10<br>5-Sep-1984 01:22<br>4-Sep-1984 13:10 | :35 VAX-11 Bliss-32 V4.0-742<br>:04 [SMGRTL.SRC]SMGSTRTAB.B32;1 | Page ( |
|-----|------|------|------|-----|-------------|------|------|------|-------|------|------------|------|-----|----------|----------------|--|---|--------|
|     |      |      |      |     |             |      |      |      |       |      |            |      |     | FF       | 00558<br>00559 | U.899: .ASCII                                | \LF_GRAPHIC\  | ;      |
|     |      |      |      |     |             |      |      |      |       |      | 100        |      |     |          |                | U.904: .BLKB                                 | 0   |        |
|     |      |      | 4E   | 45  | 45          | 52   | 43   | 53   | 5F    | 54   | 48         | 47   | 49  | 40       | 00559          | TPASKEYST<br>U.906: .ASCII                   | \LIGHT_SCREEN\  |        |
|     |      |      |      |     |             |      |      |      |       |      |            |      |     | FF       | 00565<br>00566 | .BYTE  | -1  | ;      |
|     | 52   | 4F   | 43   | 5F  | 54          | 46   | 45   | 40   | 5F    | 52   | 45         | 57   | 4F  | 40       | 00566          | U.911: BLKB                                  | 0   |        |
|     |      |      |      |     |             |      |      |      |       |      |            |      | 52  | 45<br>FF | 00575          | U.913: .ASCII                                | \LOWER_LEFT_CORNER\   |        |
|     |      |      |      |     |             |      |      |      |       |      |            |      |     | FF       | 00577<br>00578 | : TPASKEYSTO                                 | -1  | i      |
| 2   | 4F   | 43   | 5F   | 54  | 48          | 47   | 49   | 52   | 5F    | 52   | 45         | 57   | 4F  | 40       | 00578          | U.918: .BLKB                                 | 0   |        |
|     |      |      |      |     |             |      |      |      |       |      |            | 52   | 45  | 4E       | 00587          | U.920: .ASCII                                | \LOWER_RIGHT_CORNER\  |        |
|     |      |      |      |     |             |      |      |      |       |      |            |      |     | FF       | 0058A<br>0058B | : TPASKEYSTO                                 | -1  | ;      |
|     |      |      |      |     |             |      |      |      |       |      | 45         | 40   | 41  | 4E       | 0058B          | U.925: BLKB                                  | 0   |        |
|     |      |      |      |     |             |      |      |      |       |      |            |      |     | FF       | 0058F          | U.927: .ASCII                                | \NAME\ -1   | - 1    |
|     |      |      |      |     |             |      |      |      |       |      |            |      |     |          | 00590          | U.932: .BLKB                                 | 0   |        |
|     |      |      | 52   | 41  | 48          | 45   | 5F   | 45   | 4E    | 49   | 40         | 57   | 45  | 4E       |                | TPASKEYST<br>U.934: ASCII                    | \NEWLINE_CHAR\  |        |
|     |      |      |      |     |             |      |      |      |       |      |            |      |     | FF       | 0059C<br>0059D |  |   |        |
|     |      |      |      |     |             |      | 52   | 41   | 48    | 43   | 5F         | 44   | 41  | 50       | 0059D          | U.939: BLKB                                  | 0   |        |
|     |      |      |      |     |             |      |      |      |       |      |            |      |     | FF       | 005A5          | U.941: .ASCII                                | \PAD_CHAR\  |        |
|     | 53   | ,,   |      |     |             |      |      | .,   |       | ,,   |            |      |     | -        |                | TPASKEYSTO                                   | 0   |        |
|     | 52   | 4F   | 53   | 52  | 55          | 43   | 5F   | 54   | 53    | 40   | 55         | 51   | 45  | 52       |                | .TPASKEYST<br>U.948: .ASCII                  | \REQUEST_CURSOR_POSITION\                                       | ;      |
|     |      |      |      |     |             |      | 4E   | 4F   | 49    | 54   | 49         | 53   | 4F  | 50<br>FF | 005B5<br>005BD | BYTE   | -1  |        |
|     | 52   | ,,   | 67   | 52  |             | 17   |      | , ,  | 53    | ,,   | F.1        |      |     | 53       | OOSBE          | TPASKEYSTO                                   | 0   |        |
|     | 52   | 4F   | 53   | 52  | 55          | 43   | 5F   | 45   | 52    | 4F   | 54         | 53   | 45  | 52       |                | U.955: .ASCII                                | \RESTORE_CURSOR\  | ;      |
|     |      |      |      |     |             |      |      |      |       |      |            |      |     | FF       | 005CC<br>005CD | : TPASKEYSTO                                 | -1  |        |
|     |      | 58   | 45   | 44  | 4E          | 49   | 5F   | 45   | 53    | 52   | 45         | 56   | 45  | 52       | 005CD          | U.960: BLKB                                  | 0   |        |
|     |      |      |      |     |             |      |      |      |       |      |            |      |     | FF       | 005DA          | U.962: ASCII                                 | \REVERSE_INDEX\   |        |
|     |      |      | 52   | 41  | 4.9         | 43   | 55   | 5/   | 32    | 54   | 4.9        | 4.7  | 40  | 52       | 005DB          | U.967: .BLKB                                 | 0   |        |
|     |      |      | 52   | *1  | 48          | 43   | 5F   | 54   | 5F    | 54   | 48         | 47   | 49  | 52       | 005DB          | U.969: ASCII                                 | \RIGHT_T_CHAR\  | ÷      |
|     |      |      |      |     |             |      |      |      |       |      |            |      |     | FF       | 005E7<br>005E8 | :TPA\$KEYSTO<br>U.974: .BLKB                 | 0   | •      |

| THO. | IABL                 | CON                                  | VERT  | CON  | TROL  | or i  | Conve   | g ca                       | pabi   | cont  | rol   | char  | acte 1                                       | 5-Sep-1984 01:22:<br>4-Sep-1984 13:10:   | :35 VAX-11 Bliss-32 V4.0-742<br>:04 [SMGRTL.SRC]SMGSTRTAB.B32;1   | Page 2   |
|------|----------------------|--------------------------------------|---|--|---|---|---|----------------------------|--|---|---|---|--|--|---|--|
|      |                      | 52                                   | 4F  | 53   | 52  | 55  | 43  | 5F                         | 45   | 56  | 41  | 53  | 005E8  |  | VSAVE CURSORY   |  |
|      |                      |                                      |   |  |   |   |   |                            |  |   |   | FF  | 005F3<br>005F4                               | : TPASKEYSTO   | -1  | ;  |
| 52   | 41                   | 57                                   | 52  | 4F   | 46  | 5F  | 40  | 40                         | 4F   | 52  | 43  | 53  | 005F4  | ; TPASKEYST  | O SCROLL FORMARD)   |  |
|      |                      |                                      |   |  |   |   |   |                            |  |   |   | FF  | 00602  | : TPASKEYSTO   | -1  | 91   |
| 53   | 52                   | 45                                   | 56  | 45   | 52  | 5F  | 40  | 40                         | 4F   | 52  | 43  | 53  |  | :TPA\$KEYST  | 0   |  |
|      |                      |                                      |   |  |   |   |   |                            |  |   |   | FF  | 00611  | .BYTE  | -1  |  |
| 5F   | 4F                   | 54                                   | 5F  | 45   | 53  | 41  | 52  | 45                         | 5F   | 40  | 45  | 53  |  | U.995: BLKB  | 0   |  |
|      |                      |                                      |   | 59   | 41  | 40  | 50  | 53                         | 49   | 44  | 5F  | 44  | 00621  |  |   |  |
|      |                      |                                      |   |  |   |   |   |                            |  |   |   | "   |  | ; TPA\$KEYSTO  |   | •  |
| 5F   | 4F                   | 54                                   | 5F  | 45   | 53  | 41  | 52  | 45                         | 5F   | 40  | 45  | 53  |  | :TPASKEYST<br>U.1004: .ASCII   |   |  |
|      |                      |                                      |   |  |   |   | 45  | 4E                         | 49   | 40  | 5F  | FF  | 00640  |  | -1  | :  |
| 4F   | 48                   | 57                                   | 5F  | 45   | 53  | 41  | 52  | 45                         | 5F   | 40  | 45  | 53  |  | U.1009: .BLKB  | 0   |  |
|      |                      |                                      |   |  | 59  | 41  | 40  | 50                         | 53   | 49  | 44  | 5F  | 00650  | U.1011: .ASCII   | \SEL_ERASE_WHOLE_DISPLAY\   | :  |
|      |                      |                                      |   |  |   |   |   |                            |  |   |   | 11  | 00659  | ;TPA\$KEYSTO   |   |  |
| 4F   | 48                   | 57                                   | 5F  | 45   | 53  | 41  | 52  |                            |  |   | 45  |   |  | :TPA\$KEYST  |   |  |
|      |                      |                                      |   |  |   |   |   | 45                         | 4E   | 49  | 40  | 5F<br>FF  | 00668<br>0066D                               | .BYTE  | -1  |  |
| 49   | 54                   | 41                                   | 43  | 49   | 40  | 50  | 50  | 41                         | 5F   | 54  | 45  | 53  |  | U.1023: .BLKB  | 0   |  |
|      |                      |                                      |   |  |   |   |   | 50                         | 59   | 45  | 4B  |   | 0067D  | U.1025: .ASCII   | \SET_APPLICATION_KEYPAD\  | ;  |
|      |                      |                                      |   |  |   |   |   |                            |  |   |   | FF  | 00684  | :TPASKEYSTO  |   | •  |
| 5F   | 54                   | 4F                                   | 4E  | 5F   | 52  | 41  | 48  | 43                         | 5F   | 54  | 45  | 53  |  | :TPASKEYST<br>U.1032: .ASCII   |   |  |
|      |                      |                                      |   |  |   | 45  | 53  | 41                         | 52   | 45  | 5F  | 4C<br>FF  | 0069B  | .BYTE  | -1  |  |
| 5F   | 40                   | 45                                   | 53  | 5F   | 52  | 41  | 48  | 43                         | 5F   | 54  | 45  | 53  |  | U.1037: .BLKB  | 0   |  |
|      |                      |                                      |   |  |   |   |   |                            |  | 45  | 53  |   | 006AB  | U.1039: .ASCII   | \SET_CHAR_SEL_ERASE\  | :  |
|      |                      |                                      |   |  |   |   |   |                            |  |   |   | FF  | 006AE<br>006AF                               | :TPASKEYSTO  | -1<br>0   |  |
|      | 52<br>53<br>5F<br>5F | 52 41 53 52 5F 4F  4F 48 4F 48 4F 54 | 52 41 57 53 52 45 56 4F 48 57 49 54 41 55 54 4F | 52 4F 52 4F 52 4F 52 4F 53 52 45 56 5F 4F 54 5F  4F 48 57 5F 4F 48 57 5F  4F 48 57 5F  4F 48 57 5F | CONVERT_CON 52 4F 53 52 41 57 52 4F 53 52 45 56 45 59 59 59 4F 54 5F 45 45 4F 48 57 5F 45 45 49 54 41 43 49 5F 5F 54 4F 4E 5F | CONVERT_CONTROL         52       4F       53       52         52       41       57       52       4F       46         53       52       45       56       45       52         5F       4F       54       5F       45       53         5F       4F       54       5F       45       53         4F       48       57       5F       45       53         4F       48       57       5F       45       53         49       54       41       43       49       4C         5F       54       4F       4E       5F       52 | CONVERT_CONTROL - 52 4F 53 52 55  52 41 57 52 4F 46 5F  53 52 45 56 45 52 5F  5F 4F 54 5F 45 53 41 59 41 40  4F 48 57 5F 45 53 41 59 41  4F 48 57 5F 45 53 41  4F 48 57 5F 45 53 41  4F 48 57 5F 45 53 41  4F 48 57 5F 5F 45 53 41  4F 48 57 5F 5F 5F 55 41 | CONVERT_CONTROL - Converse | CONVERT_CONTROL - Convert ^ 52 4F 53 52 55 43 5F  52 41 57 52 4F 46 5F 4C 4C  53 52 45 56 45 52 5F 4C 4C  5F 4F 54 5F 45 53 41 52 45 59 41 4C 50 53  5F 4F 54 5F 45 53 41 52 45 45 45 45 45 45 45 46  4F 48 57 5F 45 53 41 52 45 59 41 4C 50  4F 48 57 5F 45 53 41 52 45 45 59 41 4C 50  5F 54 4F 4E 5F 52 41 48 43 45 53 41 | CONVERT_CONTROL - Convert * to 52 4F 53 52 55 43 5F 45  52 4F 53 52 55 43 5F 45  53 52 45 56 45 52 5F 4C 4C 4F  55 4F 54 5F 45 53 41 52 45 5F 59 41 4C 50 53 49  5F 4F 54 5F 45 53 41 52 45 5F 45 4E 49  4F 48 57 5F 45 53 41 52 45 5F 59 41 4C 50 53  4F 48 57 5F 45 53 41 52 45 5F 46 45 4E  49 54 41 43 49 4C 50 50 50 41 5F 45 45 4E  55 54 4F 4E 5F 52 41 48 43 5F 45 53 41 52 | CONVERT_CONTROL - Convert * to contour 52 4F 53 52 55 43 5F 45 56  52 4F 53 52 55 43 5F 45 56  52 4F 53 52 55 43 5F 45 56  53 52 45 56 45 52 5F 4C 4C 4F 52  5F 4F 54 5F 45 53 41 52 45 5F 4C 59 41 4C 50 53 49 44  5F 4F 54 5F 45 53 41 52 45 5F 4C 4C 45 45 4E 49 4C  4F 48 57 5F 45 53 41 52 45 5F 4C 4C 45 4E 49  4F 48 57 5F 45 53 41 52 45 5F 4C 45 4E 49  4F 48 57 5F 45 53 41 52 45 5F 4C 45 4E 49  5F 54 41 43 49 4C 50 50 41 5F 54 5F 55 55 55 55 55 55 55 55 55 55 55 55 | 52       4F       53       52       55       43       5F       45       56       41         52       41       57       52       4F       46       5F       4C       4C       4F       52       43         53       52       45       56       45       52       5F       4C       4C       4F       52       43         5F       4F       54       5F       45       53       41       52       45       5F       4C       45       5F       4G       45       5F         5F       4F       54       5F       45       53       41       52       45       5F       4C       45       5F         4F       48       57       5F       45       53       41       52       45       5F       4C       45       45         4F       48       57       5F       45       53       41       52       45       5F       4C       45         4F       48       57       5F       45       53       41       52       45       5F       4C       45         49       46       46       56 | CONVERT_CONTROL - Convert * to control chars | Second   Convert   Convert   Second   Second | CONVERT_CONTROL - Convert * to control characte 14-Sep-1984 13:10:  52  4F 53 52 55 43 5F 45 56 41 53 005E8 ;TPASKEYSTO | Second   Convert   Conve |

| MG<br>-0 | SSTR<br>03 | ING_ | TABL | CON | RSE | _CON | es f | or | Strin | gca | pabi | Liti | es | char     | 1                       | ( 10<br>5-Sep-1984 01:22<br>5-Sep-1984 13:10 | :35 VAX-11 Bliss-32 V4.0-742<br>:04 [SMGRTL.SRC]SMGSTRTAB.B32;1 | Page ( |
|----------|------------|------|------|-----|-----|------|------|----|-------|-----|------|------|----|----------|-------------------------|--|---|--------|
|          | 53         | 42   | 41   | 5F  | 52  | 4F   | 53   | 52 | 55    | 43  | 5F   | 54   | 45 | 53       | 006AF                   | TPASKEYST                                    | VCET CURCOR ARCY  |        |
|          |            |      |      |     |     |      |      |    |       |     |      |      |    | FF       | 006BD                   | U.1046: ASCII                                | \SET_CURSOR_ABS\  |        |
| )        | 45         | 4B   | 5F   | 43  | 49  | 52   | 45   | 40 | 55    | 4.5 | 50   | 54   | 45 | 53       | 006BE                   | U.1051: BLKB                                 | 0   |        |
|          | "          | 70   | "    | 1   | 77  | ,,   | 7,   | 70 | ,,    | 4E  | SF   | 54   | 41 |          | 006BE                   | U.1053: .ASCII                               | \SET_NUMERIC_KEYPAD\  |        |
|          |            |      |      |     |     |      |      |    |       |     |      |      | •  | FF       | 006CD<br>006D0<br>006D1 | ;TPASKEYSTO                                  | -1  | :      |
| 9        | 47         | 45   | 52   | 5F  | 40  | 40   | 4F   | 52 | 43    | 53  | SF   | 54   | 45 | 53       | 006D1                   | U.1058: BLKB                                 | 0   |        |
|          |            |      |      |     |     |      |      | -  | - 1   | -   | -    | •    | 4E | 4F       | 006E0                   | Ú.1060: .ASCII                               | \SET_SCROLL_REGION\   |        |
|          |            |      |      |     |     |      |      |    |       |     |      |      |    | FF       | 006E2                   | ; TPASKEYSTO                                 | -1  | ;      |
|          |            |      |      |     |     |      |      | 42 | 41    | 54  | 5F   | 54   | 45 | 53       | 006E3                   | U.1065: .BLKB                                | 0   |        |
|          |            |      |      |     |     |      |      |    |       |     |      |      |    | FF       | 006EA                   | U.1067: ASCII                                | \SET_TAB\   | 1      |
|          |            |      |      |     |     |      |      |    |       |     |      |      |    |          | 006EB                   | TPASKEYSTO<br>U.1072: .BLKB                  | 0   |        |
|          |            |      |      | 48  | 47  | 49   | 48   | 5F | 45    | 40  | 47   | 4E   | 49 | 53       | 006EB                   | TPASKEYST<br>U.1074: ASCII                   | \SINGLE_HIGH\   |        |
|          |            |      |      |     |     |      |      |    |       |     |      |      |    | FF       | 006F6<br>006F7          | :TPASKEYSTO                                  | •1  | i      |
|          |            |      |      |     |     |      | 52   | 41 | 48    | 43  | 5F   | 42   | 41 | 54       | 006F7                   | U.1079: BLKB                                 | 0   |        |
|          |            |      |      |     |     |      |      |    |       |     |      |      |    | FF       | 006FF                   | U.1081: ASCII                                | \TAB_CHAR\  |        |
|          |            |      |      |     | 53  | ,,   | ,,   | ,, |       | .,  |      | 50   | ,. | .,       | 00700                   | U.1086: .BLKB                                | 0   |        |
|          |            |      |      |     | 52  | 41   | 40   | 43 | 10    | 54  | 10   | 50   | 41 | 54       |                         | U.1088: ASCII                                | \TOP_T_CHAR\  | :      |
|          |            |      |      |     |     |      |      |    |       |     |      |      |    | FF       | 0070A<br>0070B          | :TPASKEYSTO<br>U.1093: .BLKB                 |   | •      |
| E        | 4F         | 43   | 49   | 5F  | 4E  | 4F   | 49   | 54 | 41    | 43  | 4E   | 55   | 52 | 54       | 0070B                   | ;TPASKEYST<br>U.1095: .ASCII                 | \TRUNCATION_ICON\   |        |
|          |            |      |      |     |     |      |      |    |       |     |      |      |    | FF       | 0071A<br>0071B          | .BYTE  | -1  |        |
|          | 52         | 41   | 48   | 43  | 5F  | 45   | 4E   | 49 | 40    | 52  | 45   | 44   | 4E | 55       | 0071B                   | :TPA\$KEYSTO<br>U.1100: .BLKB<br>:TPA\$KEYST | 0 .   |        |
|          |            |      |      |     |     |      |      |    |       |     |      |      |    | FF       | 00729                   | U.1102: ASCII                                | \UNDERLINE_CHAR\  | 1      |
|          |            |      |      |     |     |      |      |    |       |     |      |      |    |          | 0072A                   | :TPASKEYSTO<br>U.1107: .BLKB                 | 0   |        |
| E        | 52         | 4F   | 43   | 5F  | 54  | 46   | 45   | 40 | 5F    | 52  | 45   | 50   | 50 | 55       | 0072A                   | TPASKEYST<br>U.1109: .ASCII                  | \UPPER_LEFT_CORNER\   |        |
|          |            |      |      |     |     |      |      |    |       |     |      |      | 5₹ | FF<br>FF | 00739<br>0073B          | .BYTE  | -1  |        |
| •        | ,.         | ,,   |      |     | /0  | ,-   |      |    |       |     |      | 50   |    |          | 00730                   | U.1114: .BLKB                                | 0   |        |
| 5        | 4F         | 45   | 10   | 74  | 48  | 4/   | 49   | 52 | 10    | 52  | 45   | 50   | 50 | 55       | 00730                   | U.1116: .ASCII                               | \UPPER_RIGHT_CORNER\  | :      |
|          |            |      |      |     |     |      |      |    |       |     |      | 52   | 45 | 4E<br>FF | 0074B<br>0074E          | .BYTE  | -1  |        |

| MG\$STRING_T                            | ABL | TPA | RSE<br>VERT | _CON | es f | or  | strir<br>Conve | g ca | pabi | liti | es | char | L 10<br>16-Sep-1984 01:22:35 VAX-11 Bliss-32 V4.0-742<br>acte 14-Sep-1984 13:10:04 [SMGRTL.SRC]SMGSTRTAB.B32;1 | Page ( |
|---|-----|-----|-------------|------|------|-----|----------------|------|------|------|----|------|--|--------|
|   |     | ,.  | ,,          |      |      |     |                |      |      |      |    |      | 0074F : TPA\$KEYSTO U.1121: .BLKB 0  |        |
|   | 52  | 41  | 42          | 5F   | 40   | 41  | 43             | 49   | 54   | 52   | 45 | 56   | 0074F :TPA\$KEYST<br>U.1123: .ASCII \VERTICAL_BAR\<br>0075B .BYTE -1   | ;      |
|   |     |     |             |      |      |     |                |      |      |      |    | FF   | 0075C ;TPASKEYSTO  |        |
|   |     |     | 43          | 49   | 48   | 50  | 41             | 52   | 47   | 5F   | 54 | 56   | 0.1128: .BLKB 0  |        |
|   |     |     |             |      |      |     |                |      |      |      |    | FF   | 00766 U.1130: ASCII \VT_GRAPHIC\   | •      |
|   |     |     |             |      |      |     |                |      |      |      |    |      | 00767 :TPA\$KEYSTO<br>U.1135: .BLKB 0  |        |
|   | 57  | 4F  | 52          | 52   | 41   | 4E  | 5F             | 48   | 54   | 44   | 49 | 57   | 00/6/ :TPASKEYST   | ,      |
|   |     |     |             |      |      |     |                |      |      |      |    | FF   | 00773 .BYTE -1   | ;      |
|   |     |     | 45          | 44   | 49   | 57  | 5F             | 48   | 54   | 44   | 49 | 57   | 00774 :TPA\$KEYSTO<br>U.1142: .BLKB 0<br>00774 :TPA\$KEYST   |        |
|   |     |     |             |      |      |     |                |      |      |      |    | FF   | 0.1144: ASCII \WIDTH_WIDE\ 0077E .BYTE -1  | i      |
|   |     |     |             |      |      |     |                |      |      |      |    |      | 0077F : TPA\$KEYSTO U.1149: .BLKB 0  |        |
| 31 5                                    | 5F  | 52  | 54          | 53   | 5F   | 45  | 54             | 41   | 56   | 49   | 52 | 50   | 0077F ;TPA\$KEYST  |        |
|   |     |     |             |      |      |     |                |      |      |      |    | FF   | 0078C .BYTE -1   | :      |
| 32 5                                    | 5F  | 52  | 54          | 53   | 5F   | 45  | 54             | 41   | 56   | 49   | 52 | 50   | 0078D ; TPA\$KEYSTO<br>U.1156: .BLKB 0<br>0078D ; TPA\$KEYST   |        |
| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |     | ,,  | ,,          | ,,   | ,,   | 7,  | ,,             | 7'   | ,0   | 77   | ,, | FF   | 0.736 U.1158: ASCII \PRIVATE_STR_2\ 0079A .BYTE -1   | ÷      |
|   |     |     |             |      |      |     |                |      |      |      |    | "    | 0079B :TPASKEYSTO  | •      |
| 33 5                                    | 5F  | 52  | 54          | 53   | 5F   | 45  | 54             | 41   | 56   | 49   | 52 | 50   | 0.1163: BLKB 0<br>0079B :TPASKEYST   |        |
|   |     |     |             |      |      |     |                |      |      |      |    | FF   | 0.1165: ASCII \PRIVATE_STR_3\ 007A8 BYTE -1  |        |
| 7/ (                                    |     | 52  | .,          | 57   |      | , , | E/             | ,,   | E4   | 10   | 53 | 50   | 007A9 ; TPA\$KEYST0<br>U.1170: .BLKB 0   |        |
| 34 5                                    | 5F  | 52  | 54          | 53   | 5F   | 45  | 54             | 41   | 56   | 49   | 52 | 50   | 007A9 :TPASKEYST<br>U.1172: ASCII \PRIVATE_STR_4\  | :      |
|   |     |     |             |      |      |     |                |      |      |      |    | FF   | 007B6 .BYTE -1<br>007B7 :TPA\$KEYSTO<br>U.1177: .BLKB 0  |        |
| 35 5                                    | 5F  | 52  | 54          | 53   | 5F   | 45  | 54             | 41   | 56   | 49   | 52 | 50   | 007B7 ;TPASKEYST   |        |
|   |     |     |             |      |      |     |                |      |      |      |    | FF   | 007C4 U.1179: ASCII \PRIVATE_STR_5\ 007C4 BYTE -1  |        |
|   |     |     |             |      |      |     |                |      |      |      |    |      | 007C5 ; TPA\$KEYSTO<br>U.1184: .BLKB 0<br>007C5 ; TPA\$KEYST   |        |
| 36                                      | 5F  | 52  | 54          | 53   | 5F   | 45  | 54             | 41   | 56   | 49   | 52 | 50   | U.1186: .ASCII \PRIVATE STR 6\   | :      |
|   |     |     |             |      |      |     |                |      |      |      |    | FF   | 007D2 .BYTE -1<br>007D3 ;TPA\$KEYSTO   |        |
| 37 5                                    | 5F  | 52  | 54          | 53   | 5F   | 45  | 54             | 41   | 56   | 49   | 52 | 50   | 007D3 :TPA\$KEYST  |        |
|   |     |     |             |      |      |     |                |      |      |      |    | FF   | 007E0 U.1193: .ASCII \PRIVATE_STR_7\   |        |
|   |     |     |             |      |      |     |                |      |      |      |    |      | 007E1 :TPA\$KEYSTO<br>U.1198: .BLKB 0  |        |

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SMG$STRING_TABL TPARSE tables for string capabilities
                CONVERT_CONTROL - Convert ^ to control characte 14-Sep-1984 01:22:35
                                                                                          VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32;1
                                                                                                                               Page 28 (4)
        38 5F 52 54 53 5F 45 54 41 56 49 52 50 007E1 :TPA$KEYST U.1200: .ASCII \PRIVATE_STR_8\
                                                              007EF
                                                                    U.1205: .BLKB
        39 5F 52 54 53 5F 45 54 41 56 49 52
                                                         50
                                                             007EF : TPASKEYST
                                                                                    \PRIVATE_STR_9\
                                                              007FD
                                                                    U.1212: .BLKB
       31 5F 52 54 53 5F 45 54 41 56 49 52
                                                         50
                                                             007FD : TPASKEYST
                                                                                    \PRIVATE_STR_10\
                                                                    U.1214: .ASCII
                                                             0080C
                                                                    U.1221: .BYTE
                                                                            .PSECT _LIB$STATE$, NOWRT, SHR, PIC.1
                                                             00000 SMG$$A_STRING_STATES::
                                                                             BLKB
                                                             00000 BEGIN_SCAN:
                                                       99F8 00000 : TPA$TYPE
                                                                                    -26120
                                                       0000* 00002 : TPA$SUBEXP
                                                                                    <<U.3-U.4>-2>
                                                   00000000* 00004 :TPASACTION
                                                                                    <<SMG$$NEXT_RECORD-U.5>-4>
                                                       0000* 00008 : TPASTARGET
                                                                                    <<BEGIN_SCAN-U.6>-2>
                                                       9021 0000A ; TPASTYPE
                                                                                    -28639
                                                   00000000 0000C ; TPA$ACTION
                                                                                    <<SMG$$NEXT_RECORD-U.8>-4>
                                                       0000* 00010 :TPASTARGET
                                                                    U.9:
                                                                                    <<BEGIN_SCAN-U.9>-2>
                                                       99F8 00012 : TPA$TYPE
                                                                                    -26120
                                                                    U.10:
                                                       0000* 00014 : TPA$SUBEXP
                                                                                    <<U.11-U.12>-2>
                                                   00000000 00016 ; TPASACTION
                                                                                    <<SMG$$BLANKS_OFF-U.13>-4>
                                                       0000+ 0001A : TPASTARGET
                                                                                    <<BEGIN_SCAN-U.14>-2>
                                                       15F6 0001C : TPASTYPE
                                                                                    5622
                                                             0001E ; TPASTARGET
                                                       FFFF
                                                                    U.16:
                                                             00020 :END_OF_LINE
                                                             00020 ; TPASTYPE
                                                       11F7
                                                                                    4599
                                                             00022 ; TPASTARGET
                                                       FFFF
                                                                    U.18:
                                                             00024
                                                                   : TPASTYPE
                                                       1021
                                                                                    4129
                                                             00026 ; TPASTARGET
```

| SMG\$STRING_TABL | C 11 L TPARSE tables for string capabilities 16-Sep-1984 01:22:35 VAX-11 Bliss-32 VAX-11 CONVERT_CONTROL - Convert ^ to control characte 14-Sep-1984 13:10:04 [SMGRTL.SRC]SMGSTF | 4.0-742 Page 31<br>RTAB.B32;1 (4) |
|------------------|--|-----------------------------------|
|                  | U.123: .WORD 28942   |                                   |
|                  | 00000000 000BE ; TPA\$ADDR<br>U.124: LONG << SMG\$\$MASK_ADR-U.124>-4  | 4> :                              |
|                  | 000001C0 000C2 : TPASMASK<br>U.125: LONG 448   |                                   |
|                  | FFFF 000C6 ; TPASTARGET U.126: .WORD -1  |                                   |
|                  | 710F 000C8 : TPA\$TYPE<br>U.130: .WORD 28943   |                                   |
|                  | 00000000* 000CA ; TPA\$ADDR  |                                   |
|                  | 000001C1 000CE ; TPASMASK _ CNC  |                                   |
|                  | FFFF 000D2 ; TPASTARGET  |                                   |
|                  | 7110 000D4 ; TPA\$TYPE -1  |                                   |
|                  | 00000000 00006 ;TPA\$ADDR  | •                                 |
|                  | 000001C2 000DA ; TPA\$MASK < < SMG\$\$MASK_ADR-U.138>-4  | 4>                                |
|                  | FFFF 000DE ; TPASTARGET  | :                                 |
|                  | 7111 000E0 ; TPA\$TYPE -1  |                                   |
|                  | U.144: .WORD 28945   |                                   |
|                  | 0G000000* 000E2 ; TPA\$ADDR<br>U.145: LONG << SMG\$\$MASK_ADR-U.145>-  | 4> ;                              |
|                  | 00000249 000E6 ; TPA\$MASK<br>U.146: LONG 585  |                                   |
|                  | FFFF 000EA : TPASTARGET U.147: .WORD -1  |                                   |
|                  | 7112 000EC : TPA\$TYPE<br>U.151: .WORD 28946   |                                   |
|                  | 00000000 000FE : TPA\$ADDR   | 4> :                              |
|                  | U.152: .LONG < <smg\$\$mask_adr-u.152>-4<br/>000001C3 000F2 :TPA\$MASK<br/>U.153: .LONG 451</smg\$\$mask_adr-u.152>  |                                   |
|                  | FFFF 000F6 : TPASTARGET U.154: WORD -1   |                                   |
|                  | 7113 000F8 ;TPA\$TYPE  |                                   |
|                  | 00000000* 000FA ; TPA\$ADDR  |                                   |
|                  | 000001C4 000FE ; TPA\$MASK < CSMG\$\$MASK_ADR-U.159>-4   |                                   |
|                  | FFFF 00102 :TPASTARGET   |                                   |
|                  | 7114 00104 :TPASTYPE   |                                   |
|                  | 00000000 00106 ; TPA\$ADDR 28948   | •                                 |
|                  | U.166: LONG < <smg\$\$mask_adr-u.166>-4</smg\$\$mask_adr-u.166>  | 4> :                              |
|                  | FFFF 0010E : TPASTARGET  | •                                 |
|                  | U.168: .WORD -1  |                                   |
|                  | 7115 00110 :TPA\$TYPE<br>U.172: .WORD 28949  |                                   |

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SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 CONVERT_CONTROL - Convert ^ to control characte 14-Sep-1984 13:10:04
                                                                                                     VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32;1
                                                                    002C0 :TPA$TYPE U.424: WORD 002C2 :TPA$ADDR U.425: LONG
                                                              7139
                                                                                              28985
                                                         00000000* 00202
                                                                                              <<SMG$$MASK_ADR-U.425>-4>
                                                                     002C6 : TPA$MASK
                                                         000001E4
                                                                                              484
                                                                     002CA :TPASTARGET
                                                              FFFF
                                                                                              -1
                                                                                     . WORD
                                                                            TPASTYPE
                                                              713A
                                                                     002CC
                                                                                              28986
                                                                                     . WORD
                                                         00000000 * 002CE
                                                                            TPASADDR
                                                                                              <<SMG$$MASK_ADR-U.432>-4>
                                                                                     .LONG
                                                                            TPASMASK
U.433: .L
                                                         000001E5
                                                                     002D2
                                                                                              485
                                                                            TPASTARGET
                                                                     00206
                                                              FFFF
                                                                                              -1
                                                                            :TPA$TYPE
                                                              713B
                                                                     002D8
                                                                                     . WORD
                                                                                              28987
                                                         00000000 002DA
                                                                            ; TPA$ADDR
                                                                            U.439:
                                                                                              <<SMG$$MASK_ADR-U.439>-4>
                                                         000001E6
                                                                     002DE
                                                                            : TPASMASK
                                                                            U.440:
                                                                                              486
                                                              FFFF
                                                                     002E2 ; TPASTARGET
                                                                            U.441:
                                                                                              -1
                                                              713C
                                                                     002E4
                                                                            ; TPASTYPE
                                                                            U.445:
                                                                                              28988
                                                         00000000 002E6
                                                                            ; TPASADDR
                                                                                              <<SMG$$MASK_ADR-U.446>-4>
                                                                            U.446:
                                                         000001E7
                                                                     002EA
                                                                            ; TPASMASK
                                                                            U.447:
                                                                                              487
                                                              FFFF
                                                                     002EE
                                                                           ; TPASTARGET
                                                                            U.448:
                                                                                              -1
                                                                            :TPA$TYPE
                                                              713D
                                                                     002F0
                                                                                              28989
                                                         00000000* 002F2
                                                                            ; TPASADDR
                                                                            U.453:
                                                                                              <<SMG$$MASK_ADR-U.453>-4>
                                                                            :TPA$MASK
                                                         000001E8
                                                                     002F6
                                                                                              488
                                                                     002FA
                                                              FFFF
                                                                           ; TPASTARGET
                                                                            U.455:
                                                                                              -1
                                                                     002FC
                                                              713E
                                                                            : TPASTYPE
                                                                            U.459:
                                                                                              28990
                                                         00000000 002FE
                                                                            ; TPASADDR
                                                                            U.460:
                                                                                              <<SMG$$MASK_ADR-U.460>-4>
                                                         000001E9
                                                                     00302
                                                                            : TPASMASK
                                                                                              489
                                                                            U.461:
                                                              FFFF
                                                                     00306
                                                                            : TPASTARGET
                                                                            U.462:
                                                                                              -1
                                                                     00308
                                                                            : TPASTYPE
                                                              713F
                                                                                              28991
                                                                            U.466:
                                                         00000000 0030A
                                                                            ; TPASADDR
                                                                                              <<SMG$$MASK_ADR-U.467>-4>
                                                                            U.467:
                                                         000001EA
                                                                     0030E
                                                                            ; TPASMASK
                                                                            U.468: .LONG
                                                                                              490
                                                                            : TPASTARGET
                                                              FFFF
                                                                     00312
                                                                            U.469: .WORD
                                                                                              -1
```

0056A : TPASTARGET

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| 1G\$STRING_TABL | TPARSE tables for string capabilities 16-Sep-1984 01:22:35 VAX-11 Bliss-32 V4.0-742 CONVERT_CONTROL - Convert ^ to control characte 14-Sep-1984 13:10:04 [SMGRTL.SRC]SMGSTRTAB.832:1 | Page 4 |
|-----------------|--|--------|
|                 | 00000000* 0066A :TPA\$ADDR<br>U.971: LONG < <smg\$\$mask_adr-u.971>-4&gt;</smg\$\$mask_adr-u.971>  |        |
|                 | 0000022F 0066E ;TPA\$MASK<br>U.972: LONG 559   |        |
|                 | FFFF 00672 : TPASTARGET U.973: .WORD -1  |        |
|                 | 7188 00674 : TPASTYPE<br>U.977: .WORD 29064  |        |
|                 | 00000000* 00676 :TPA\$ADDR<br>U.978: LONG < <smg\$\$mask_adr-u.978>-4&gt;</smg\$\$mask_adr-u.978>  |        |
|                 | 00000230 0067A : TPA\$MASK<br>U.979: LONG 560  |        |
|                 | FFFF 0067E :TPASTARGET<br>U.980: .WORD -1  |        |
|                 | 7189 00680 : TPA\$TYPE<br>U.984: .WORD 29065   |        |
|                 | 00000000* 00682 :TPA\$ADDR<br>U.985: LONG < <smg\$\$mask_adr-u.985>-4&gt;</smg\$\$mask_adr-u.985>  |        |
|                 | 00000231 00686 : TPA\$MASK<br>U.986: .LONG 561   |        |
|                 | FFFF 0068A : TPASTARGET U.987: .WORD -1  |        |
|                 | 718A 0068C : TPASTYPE<br>U.991: .WORD 29066  |        |
|                 | 00000000* 0068E :TPA\$ADDR<br>U.992: LONG < <smg\$\$mask_adr-u.992>-4&gt;</smg\$\$mask_adr-u.992>  |        |
|                 | 00000232 00692 :TPASMASK<br>U.993: LONG 562  |        |
|                 | FFFF 00696 : TPASTARGET 0.994: .WORD -1  |        |
|                 | 718B 00698 : TPASTYPE U.998: .WORD 29067   |        |
|                 | 00000000* 0069A ;TPA\$ADDR   |        |
|                 | 00000233 0069E ; TPA\$MASK   |        |
|                 | FFFF 006A2 : TPASTARGET  |        |
|                 | FFFF 006A2 : TPASTARGET<br>U.1001: WORD -1<br>718C 006A4 : TPASTYPE  | •      |
|                 | 00000000* 006A6 :TPA\$ADDR   |        |
|                 | 0.1006: LONG < <smg\$\$mask_adr-u.1006>-4&gt;</smg\$\$mask_adr-u.1006>   |        |
|                 | FFFF 006AE : TPASTARGET  | •      |
|                 | 718D 006B0 : TPA\$TYPE   |        |
|                 | 00000000* 006B2 :TPA\$ADDR   | •      |
|                 | 00000235 006B6 :TPASMASK < <smg\$smask_adr-u.1013>-4&gt;</smg\$smask_adr-u.1013>   |        |
|                 | U.1014: LONG 565  FFFF 006BA :TPASTARGET   | ;      |
|                 | 718E 006BC : TPASTYPE -1   |        |
|                 | 0.1019: .WORD 29070<br>00000000* 006BE ;TPA\$ADDR  | :      |

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D 13
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 CONVERT_CONTROL - Convert ^ to control characte 14-Sep-1984 13:10:04
                                                                                                       VAX-11 Bliss-32 V4.0-742
ESMGRTL.SRCJSMGSTRTAB.B32;1
                                                                                                                                                  Page
                                                          00000000V 0095C :TPASACTION U.1362: LONG
                                                                                                -28175
                                                                                                <<INVALID_DIRECTIVE-U.1362>-4>
                                                                             ; TPASTARGET
                                                                      00960
                                                                             U.1363: .WORD
                                                               95ED
                                                                      00962
                                                                             U.1364: .WORD
                                                                                                -27155
                                                           00000000V 00964
                                                                             :TPASACTION
U.1365: LONG
                                                                                                <<INVALID_DIRECTIVE-U.1365>-4>
                                                                      00968
                                                                             ; TPASTARGET
                                                               FFFE
                                                                             U.1366: .WORD
:TPASTYPE
U.1367: .WORD
                                                                      0096A
                                                               FO4C
                                                                                                -4020
                                                           00000000* 0096C
                                                                             : TPASACTION
                                                                             U.1368: .LONG
                                                                                                <<SMG$$SAVE_TOKEN_STRING-U.1368>-4>
                                                           00000000 00970
                                                                             : TPASADDR
                                                                             U.1369: .LONG
                                                                                                <<SMG$$MASK_ADR-U.1369>-4>
                                                           FFFFFFFF
                                                                      00974
                                                                             : TPASMASK
                                                                             U.1370: .LONG
                                                                      00978 : TPASTARGET
                                                               FFFF
                                                                             U.1371: .WORD
                                                               91F1
                                                                      0097A
                                                                             ; TPASTYPE
                                                                             U.1372: .WORD
                                                                                                -28175
                                                           00000000V 0097C
                                                                             ; TPASACTION
                                                                             U.1373: .LONG
                                                                                                <<INVALID_DIRECTIVE-U.1373>-4>
                                                                      00980
                                                                             : TPASTARGET
                                                               FFFE
                                                                             U.1374: .WORD
                                                                      00982
                                                               95ED
                                                                             : TPASTYPE
                                                                             U.1375: .WORD
                                                                                                -27155
                                                           00000000V 00984
                                                                             : TPASACTION
                                                                             U.1376: .LONG
                                                                                                <<INVALID_DIRECTIVE-U.1376>-4>
                                                               FFFE
                                                                      00988
                                                                             : TPASTARGET
                                                                             U.1377: .WORD
                                                                                                -2
                                                                      0098A ;ARITH_CAP
U.1284: .BLKB
                                                                                                0
                                                                      0098A
                                                                             : TPASTYPE
                                                               9028
                                                                             U.1378: .WORD
                                                                                                -28632
                                                          00000000V 0098C
                                                                             : TPASACTION
                                                                               .1379: .LONG
                                                                                                <<INIT_ARITH_CAP-U.1379>-4>
                                                               0000* 00990
                                                                             : TPASTARGET
                                                                             U.1381: .WORD
                                                                                                <<u.1380-U.1381>-2>
                                                               11F2 00992 ; TPA$TYPE
                                                                             U.1382: .WORD
                                                                                                4594
                                                                             :TPASTARGET
U.1383: .WORD
                                                               0000* 00994
                                                                                                <<U.1284-U.1383>-2>
                                                                      00996
                                                                             : TPASTYPE
                                                               15F6
                                                                             U.1384: .WORD
                                                                                                5622
                                                               FFFE
                                                                      00998
                                                                             : TPASTARGET
                                                                      0099A :ARITH CAP2
U.1380: .BLKB
                                                                                                -2
                                                                                                0
                                                                             : TPASTYPE
                                                                      0099A
                                                               19F8
                                                                               .1386: .WORD
                                                                                                6648
                                                               0000* 0099C
                                                                             ; TPA$SUBEXP
                                                                             U.1388: .WORD
:TPASTARGET
                                                                                                <<u.1387-u.1388>-2>
                                                                      0099E
                                                                             U.1389: .WORD
```

```
F 13
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 CONVERT_CONTROL - Convert ^ to control characte 14-Sep-1984 13:10:04
                                                                                                   VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32;1
                                                                                                                                            Page
                                                                          U.1416: .WORD
                                                                                            6648
                                                             0000+ 009EC ; TPASSUBEXP
                                                                          U.1418: .WORD
                                                                                            <<U.1417-U.1418>-2>
                                                             0000+ 009EE : TPASTARGET
                                                                          U.1419: .WORD
                                                                                            <<OPERATOR-U.1419>-2>
                                                             81F1
                                                                   009F0
                                                                          ; TPASTYPE
                                                                          U.1420: .WORD
                                                                                             -32271
                                                        OOOOOOOV OO9F2 ; TPASACTION
                                                                          U.1421: .LONG
                                                                                            <<EXPRESSION_ERROR-U.1421>-4>
                                                             85ED 009F6 : TPASTYPE
                                                        00000000V 009F8 : TPASACTION U.1423: .LONG
                                                                                             -31251
                                                                                            <<EXPRESSION_ERROR-U.1423>-4>
                                                                    OO9FC ; SUBSTITUTION
                                                                          U.1417: .BLKB
                                                             0025
                                                                   009FC : TPASTYPE
                                                                                            37
                                                                          U.1424: .WORD
                                                                   009FE : TPASTYPE
                                                             15F6
                                                                          U.1425: .WORD
                                                                                            5622
                                                             FFFE
                                                                   00A00
                                                                          ; TPASTARGET
                                                                                             -2
                                                                          U.1426: .WORD
                                                             91F3
                                                                   00A02 ; TPASTYPE
                                                                          U.1427: .WORD
                                                                                             -28173
                                                        00000000V 00A04
                                                                          : TPASACTION
                                                                          U.1428: .LONG
                                                                                            <<STORE_SUBSTITUTION-U.1428>-4>
                                                                   00A08 ; TPASTARGET
                                                             FFFF
                                                                          U.1429: .WORD
                                                                                             -1
                                                             85ED
                                                                    OOAOA ; TPASTYPE
                                                                                            -31251
                                                                          U.1430: .WORD
                                                        OOOOOOOV OOAOC ; TPASACTION
                                                                          U.1431: .LONG
                                                                                            <<EXPRESSION_ERROR-U.1431>-4>
                                                                                   .PSECT
                                                                                            _LIB$KEYO$, NOWRT, SHR, PIC, 1
                                                                    00000 SMG$$A_STRING_KEYWDS::
                                                                                    BLKB
                                                                   00000 : TPA$KEYO
                                                                                            0
                                                                                    .BLKB
                                                             0000* 00000 ; TPA$KEY
                                                                                   .WORD
                                                                          U.30:
                                                                                            <U.29-U.1>
                                                             0000* 00002 ;TPA$KEY
                                                                                    .WORD
                                                                                            <0.34-0.1>
                                                             0000* 00004 ; TPASKEY
                                                                          U.40:
                                                                                    .WORD
                                                                                            <U.39-U.1>
                                                             0000* 00006
                                                                          ; TPASKEY
                                                                          U.45:
                                                                                    . WORD
                                                                                            <0.44-0.1>
                                                             80000 *00008
                                                                          ; TPASKEY
                                                                          U.50:
                                                                                    . WORD
                                                                                            <U.49-U.1>
                                                             0000* 0000A ; TPASKEY
                                                                          U.56:
                                                                                    . WORD
                                                                                            <U.55-U.1>
                                                             0000* 0000C
                                                                          ; TPASKEY
                                                                          U.65:
                                                                                            <0.64-0.1>
                                                             0000* 0000E
                                                                          ; TPASKEY
                                                                          Ú.72:
                                                                                            <0.71-0.1>
                                                             0000* 00010
                                                                          : TPASKEY
                                                                          U.79:
                                                                                    . WORD
                                                                                            <U.78-U.1>
                                                             0000* 00012 ; TPASKEY
```

1-003

| MG\$STRING_TABL | TPARSE tables for string capabilities 16-Sep-1984 01:22:35 VAX-11 Bliss-32 V4.0-742 CONVERT_CONTROL - Convert ^ to control characte 14-Sep-1984 13:10:04 [SMGRTL.SRC]SMGSTRTAB.B32:1 | Page 6 |
|-----------------|--|--------|
|                 | U.86: .WORD <u.85-u.1></u.85-u.1>  | ;      |
|                 | 0000* 00014 :TPA\$KEY<br>U.93: .WORD <u.92-u.1></u.92-u.1>   | ;      |
|                 | 0000* 00016 :TPA\$KEY<br>U.100: .WORD <u.99-u.1></u.99-u.1>  | :      |
|                 | 0000* 00018 : TPASKEY<br>U.107: .WORD <u.106-u.1></u.106-u.1>  | ;      |
|                 | 0000* 0001A :TPA\$KEY<br>U.114: .WORD <u.113-u.1></u.113-u.1>  | ;      |
|                 | 0000* 0001C :TPA\$KEY<br>U.121: .WORD <u.120-u.1></u.120-u.1>  | ,      |
|                 | 0000* 0001E :TPA\$KEY<br>U.128: .WORD <u.127-u.1></u.127-u.1>  |        |
|                 | 0000* 00020 :TPA\$KEY<br>U_135: _WORD <u_134-u_1></u_134-u_1>  |        |
|                 | 0000* 00022 :TPA\$KEY<br>U.142: .WORD <u.141-u.1></u.141-u.1>  |        |
|                 | 0000* 00024 : TPA\$KEY<br>U.149: .WORD <u.148-u.1></u.148-u.1>   |        |
|                 | 0000* 00026 : TPA\$KEY<br>U.156: .WORD <u.155-u.1></u.155-u.1>   |        |
|                 | 0000* 00028 : TPA\$KEY<br>U.163: .WORD <u.162-u.1></u.162-u.1>   |        |
|                 | 0000* 0002A : TPA\$KEY<br>U.170: .WORD <u.169-u.1></u.169-u.1>   |        |
|                 | 0000* 0002C :TPA\$KEY<br>U.177: .WORD <u.176-u.1></u.176-u.1>  |        |
|                 | 0000* 0002E :TPA\$KEY<br>U.184: .WORD <u.183-u.1></u.183-u.1>  |        |
|                 | 0000* 00030 :TPA\$KEY<br>U.191: .WORD <u.190-u.1></u.190-u.1>  |        |
|                 | 0000* 00032 :TPA\$KEY<br>U.198: .WORD <u.197-u.1></u.197-u.1>  |        |
|                 | 0000* 00034 : TPA\$KEY<br>U.205: .WORD <u.204-u.1></u.204-u.1>   |        |
|                 | 0000* 00036 ; TPA\$KEY   |        |
|                 | 0000* 00038 ;TPA\$KEY HORD <u.211-u.1></u.211-u.1>   |        |
|                 | 0.219: .WORD <u.218-u.1> 0000* 0003A ;TPA\$KEY</u.218-u.1>   |        |
|                 | 0.226: .WORD <u.225-u.1><br/>0000* 0003C ;TPA\$KEY</u.225-u.1>   |        |
|                 | 0.233: .WORD <u.232-u.1><br/>0000* 0003E ;TPA\$KEY</u.232-u.1>   |        |
|                 | 0.240: .WORD <u.239-u.1></u.239-u.1>   | •      |
|                 | 0000* 00042 ;TPA\$KEY <u.246-u.1></u.246-u.1>  |        |
|                 | U.254: .WORD <u.253-u.1></u.253-u.1>   | :      |
|                 | 0.261: .WORD <0.260-U.1>   |        |
|                 | 0.268: .WORD <0.267-U.1>   | ;      |
|                 | U.275: .WORD <u.274-u.1></u.274-u.1>   | :      |
|                 | U.282: .WORD <u.281-u.1></u.281-u.1>   | :      |

| SMG\$STRING_TABL | TPARSE tables for string capabilities 16-Sep-1984 01:22:35 VAX-11 Bliss-32 V4.0-742 CONVERT_CONTROL - Convert ^ to control characte 14-Sep-1984 13:10:04 [SMGRTL.SRCJSMGSTRTAB.B32;1 | Page 62 |
|------------------|--|---------|
|                  | 0000* 0004C ; TPA\$KEY   |         |
|                  | 0000* 0004E ;TPA\$KEY  | •       |
|                  | 0000* 00050 :TPASKEY .WORD <u.295-u.1></u.295-u.1>   |         |
|                  | 0000* 00052 :TPASKEY   |         |
|                  | 0000* 00054 :TPASKEY   |         |
|                  | 0000* 00056 :TPA\$KEY  |         |
|                  | 0000* 00058 ; TPA\$KEY <0.323-U.1>   |         |
|                  | 0000* 0005A ; TPASKEY <0.330-U.1>  |         |
|                  | 0000* 0005C ;TPA\$KEY <0.337-U.1>  |         |
|                  | 0000+ 0005E ;TPASKEY <u.344-u.1></u.344-u.1>   | :       |
|                  | 0000* 00060 ;TPA\$KEY <0.351-U.1>  | i       |
|                  | 0000* 00062 ;TPA\$KEY  | :       |
|                  | 0000* 00064 :TPA\$KEY  | :       |
|                  | 0.373: .WORD <u.372-u.1></u.372-u.1>   | ;       |
|                  | U.380: .WORD <u.379-u.1></u.379-u.1>   | ;       |
|                  | U.387: .WORD <u.386-u.1></u.386-u.1>   | :       |
|                  | U.394: .WORD <u.393-u.1></u.393-u.1>   | :       |
|                  | U.401: .WORD <u.400-u.1></u.400-u.1>   | ;       |
|                  | U.408: .WORD <u.407-u.1></u.407-u.1>   | ;       |
|                  | U.415: .WORD <u.414-u.1></u.414-u.1>   | ;       |
|                  | 0.422: .WORD <u.421-u.1></u.421-u.1>   | :       |
|                  | U.429: .WORD <u.428-u.1> 0000* 00076 ;TPA\$KEY</u.428-u.1>   | :       |
|                  | 000* 00078 U.436: .WORD <u.435-u.1></u.435-u.1>  | :       |
|                  | U_443: _WORD <u_442-u_1></u_442-u_1>   | :       |
|                  | 0000* 0007A :TPA\$KEY<br>U.450: .WORD <u.449-u.1></u.449-u.1>  | :       |
|                  | 0000* 0007C :TPA\$KEY<br>U.457: .WORD <u.456-u.1></u.456-u.1>  | :       |
|                  | 0000+ 0007E :TPA\$KEY<br>U.464: .WORD <u.463-u.1></u.463-u.1>  |         |
|                  | 0000* 00080 :TPA\$KEY<br>U.471: .WORD <u.470-u.1></u.470-u.1>  |         |
|                  | 0000* 00082 :TPA\$KEY<br>U.478: .WORD <u.477-u.1><br/>0000* 00084 :TPA\$KEY</u.477-u.1>  | :       |

| -003 | TPARSE tables for string capabilities 16-Sep-1984 01:22:35 VAX-11 Bliss-32 V4.0-742 CONVERT_CONTROL - Convert ^ to control characte 14-Sep-1984 13:10:04 [SMGRTL.SRC]SMGSTRTAB.B32;1 | Page 63 |
|------|--|---------|
|      | 0000* 00086 ; TPASKEY <u.484-u.1></u.484-u.1>  | ;       |
|      | 0000* 00088 ; TPASKEY <u.491-u.1></u.491-u.1>  | :       |
|      | U.499: .WORD <u.498-u.1></u.498-u.1>   | :       |
|      | 0000+ 0008A ; TPA\$KEY<br>U.506: .WORD <u.505-u.1></u.505-u.1>   | :       |
|      | 0000* 0008C ; TPA\$KEY<br>U.513: .WORD <u.512-u.1></u.512-u.1>   | :       |
|      | 0000* 0008E ;TPA\$KEY<br>U.520: .WORD <u.519-u.1></u.519-u.1>  | ;       |
|      | 0000* 00090 ; TPA\$KEY<br>U.527: .WORD <u.526-u.1></u.526-u.1>   |         |
|      | 0000* 00092 ; TPA\$KEY<br>U.534: .WORD <u.533-u.1></u.533-u.1>   |         |
|      | 0000* 00094 ; TPA\$KEY<br>U.541: .WORD <u.540-u.1></u.540-u.1>   |         |
|      | 0000* 00096 ; TPA\$KEY<br>U.548: .WORD <u.547-u.1></u.547-u.1>   |         |
|      | 0000* 00098 :TPA\$KEY<br>U.555: .WORD <u.554-u.1></u.554-u.1>  |         |
|      | 0000* 0009A ; TPA\$KEY   | •       |
|      | 0000* 0009C ; TPA\$KEY   | •       |
|      | 0000* 0009E ;TPA\$KEY  | •       |
|      | 0.576: .WORD <0.575-U.1>   |         |
|      | 0.583: .WORD <u.582-u.1></u.582-u.1>   |         |
|      | 0.590: .WORD <0.589-U.1>   | :       |
|      | U.597: .WORD <u.596-u.1></u.596-u.1>   | :       |
|      | U.604: .WORD <u.603-u.1></u.603-u.1>   | :       |
|      | U.611: .WORD <u.610-u.1></u.610-u.1>   | :       |
|      | 0000* 000AA ;TPA\$KEY<br>U.618: .WORD <u.617-u.1></u.617-u.1>  | :       |
|      | 0000* 000AC :TPA\$KEY<br>U.625: .WORD <u.624-u.1></u.624-u.1>  | :       |
|      | 0000* 000AE :TPA\$KEY<br>U.632: .WORD <u.631-u.1></u.631-u.1>  | :       |
|      | 0000* 000B0 :TPA\$KEY<br>U.639: .WORD <u.638-u.1></u.638-u.1>  |         |
|      | 0000* 000B2 :TPASKEY<br>U.646: .WORD <u.645-u.1></u.645-u.1>   |         |
|      | 0000* 000B4 :TPA\$KEY<br>U.653: .WORD <u.652-u.1></u.652-u.1>  |         |
|      | 0000+ 000B6 :TPA\$KEY<br>U.660: .WORD <u.659-u.1></u.659-u.1>  |         |
|      | 0000* 000B8 ; TPA\$KEY   |         |
|      | 0000* 000BA : TPASKEY  | •       |
|      | 0.674: .WORD <u.673-u.1></u.673-u.1>   | •       |

| MG\$STRING_TABL | TPARSE tables for string capabilities 16-Sep-1984 01:22:35 VAX-11 Bliss-32 V4.0-742 CONVERT_CONTROL - Convert ^ to control characte 14-Sep-1984 13:10:04 [SMGRTL.SRC]SMGSTRTAB.B32;1 | Page 65 (4) |
|-----------------|--|-------------|
|                 | 0000* 000F8 ;TPA\$KEY <u.883-u.1></u.883-u.1>  | ;           |
|                 | U.891: .WORD <u.890-u.1></u.890-u.1>   | :           |
|                 | U.898: .WORD <u.897-u.1></u.897-u.1>   | :           |
|                 | 0000* 000FC ;TPA\$KEY<br>U.905: .WORD <u.904-u.1></u.904-u.1>  |             |
|                 | 0000* 000FE : TPA\$KEY<br>U.912: .WORD <u.911-u.1></u.911-u.1>   |             |
|                 | 0000* 00100 ; TPA\$KEY<br>U.919: .WORD <u.918-u.1></u.918-u.1>   |             |
|                 | 0000* 00102 :TPA\$KEY<br>U.926: .WORD <u.925-u.1></u.925-u.1>  |             |
|                 | 0000* 00104 :TPA\$KEY<br>U.933: .WORD <u.932-u.1></u.932-u.1>  |             |
|                 | 0000* 00106 ; TPA\$KEY   |             |
|                 | 0000* 00108 ;TPA\$KEY  | •           |
|                 | 0000* 0010A ;TPA\$KEY  | •           |
|                 | 0000* 0010C ; TPA\$KEY <0.953-U.1>   | ;           |
|                 | 0.961: .WORD <0.960-U.1>   | :           |
|                 | 0.968: .WORD <u.967-u.1></u.967-u.1>   |             |
|                 | U.975: .WORD <u.974-u.1> 0000* 00112 ;TPA\$KEY</u.974-u.1>   | :           |
|                 | U.982: .WORD <u.981-u.1></u.981-u.1>   | :           |
|                 | U.989: .WORD <u.988-u.1></u.988-u.1>   |             |
|                 | 0000* 00116 :TPA\$KEY<br>U.996: .WORD <u.995-u.1></u.995-u.1>  | :           |
|                 | 0000* 00118 :TPA\$KEY<br>U.1003: .WORD <u.1002-u.1></u.1002-u.1>   | ;           |
|                 | 0000* 0011A : TPA\$KEY<br>U.1010: .WORD <u.1009-u.1></u.1009-u.1>  | ,           |
|                 | 0000* 0011C :TPASKEY<br>U.1017: .WORD <u.1016-u.1></u.1016-u.1>  |             |
|                 | 0000* 0011E :TPA\$KEY<br>U.1024: .WORD <u.1023-u.1></u.1023-u.1>   |             |
|                 | 0000* 00120 ;TPA\$KEY  |             |
|                 | 0.1031: .WORD <0.1030-U.1><br>0000* 00122 :TPA\$KEY<br>U.1038: .WORD <0.1037-U.1>  |             |
|                 | 0000* 00124 ;TPASKEY   |             |
|                 | 0.1045: .WORD <u.1044-u.1></u.1044-u.1>  | :           |
|                 | 0.1052: .WORD <u.1051-u.1></u.1051-u.1>  | :           |
|                 | U.1059: .WORD <u.1058-u.1></u.1058-u.1>  | :           |
|                 | U.1066: .WORD <u.1065-u.1></u.1065-u.1>  | :           |
|                 | 0000* 0012C :TPA\$KEY<br>U.1073: .WORD <u.1072-u.1></u.1072-u.1>   | ;           |
|                 | 0000* 0012E :TPASKEY<br>U.1080: .WORD <u.1079-u.1></u.1079-u.1>  | :           |

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SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 CONVERT_CONTROL - Convert ^ to control characte 14-Sep-1984 13:10:04
                                                                                                                         VAX-11 Bliss-32 V4.0-742 [SMGRTL.SRC]SMGSTRTAB.B32;1
                                                                                                                                                                                  (4)
                                                                                                                                                                          Page
                                                                          0000* 00130 :TPASKEY U.1087: .WORD
                                                                                                                 <U.1086-U.1>
                                                                          0000+ 00132 :TPASKEY U.1094:
                                                                                                     . WORD
                                                                                                                 <U.1093-U.1>
                                                                          0000* 00134
                                                                                           : TPASKEY
                                                                                           U.1101: .WORD
                                                                                                                 <U.1100-U.1>
                                                                                           : TPASKEY
                                                                          0000* 00136
                                                                                           U.1108: .WORD
                                                                                                                 <U.1107-U.1>
                                                                          0000* 00138
                                                                                           : TPASKEY
                                                                                           U.1115: .WORD
                                                                                                                 <U.1114-U.1>
                                                                          0000* 0013A ; TPASKEY
                                                                                           U.1122: .WORD
                                                                                                                 <U.1121-U.1>
                                                                          0000* 0013C
                                                                                           ; TPASKEY
                                                                                           U.1129: .WORD
                                                                                                                 <U.1128-U.1>
                                                                          0000* 0013E
                                                                                          : TPASKEY
                                                                                           U.1136: .WORD
                                                                                                                 <U.1135-U.1>
                                                                          0000* 00140
                                                                                           ; TPASKEY
                                                                                           U.1143: .WORD
                                                                                                                 <U.1142-U.1>
                                                                          0000* 00142 ; TPASKEY
                                                                                           U.1150: .WORD
                                                                                                                 <U.1149-U.1>
                                                                          0000* 00144
                                                                                           ; TPASKEY
                                                                                           U.1157: .WORD
                                                                                                                 <U.1156-U.1>
                                                                                          TPASKEY
U.1164: .WORD
                                                                          0000* 00146
                                                                                                                 <U.1163-U.1>
                                                                                          : TPASKEY
                                                                          0000* 00148
                                                                                           U.1171: .WORD
                                                                                                                 <U.1170-U.1>
                                                                          0000* 0014A ; TPASKEY
                                                                                           U.1178: .WORD
                                                                                                                 <0.1177-0.1>
                                                                          0000* 0014C ; TPASKEY
                                                                                           U.1185: .WORD
                                                                                                                 <U.1184-U.1>
                                                                          0000* 0014E ; TPA$KEY
                                                                                           U.1192: .WORD
                                                                                                                 <U.1191-U.1>
                                                                          0000* 00150
                                                                                          : TPASKEY
                                                                                           U.1199: .WORD
                                                                                                                 <U.1198-U.1>
                                                                          0000* 00152 ; TPASKEY
                                                                                           U.1206: .WORD
                                                                                                                 <U.1205-U.1>
                                                                          0000* 00154 : TPASKEY
                                                                                           U.1213: .WORD
                                                                                                                 <U.1212-U.1>
                                                                                                                OTS$CVT_TI_L, SMG$$BLANKS_OFF
SMG$$BLANKS_ON, SMG$$COPY_CAP
                                                                                                      .EXTRN
                                                                                                                SMG$$FLUSH_ARITHMETIC
SMG$$FLUSH_SAVED_BUFFER
SMG$$MISSING_END
                                                                                                      .EXTRN
                                                                                                      .EXTRN
                                                                                                      .EXTRN
                                                                                                                SMG$$MISSING_END
SMG$$NEXT_RECORD
SMG$$SAVE_TOKEN_STRING
SMG$$STORE_CAP_MASK
SMG$$SYNTAX_ERROR
SMG$_ERRAT_CIN, SMG$_INVDIR
SMG$_INVEXP, SMG$_MISTERNAM
SMG$_NOTSTRCAP, SMG$_SYNERR
SMG$$MASK_ADR, SMG$$NEXT_NEGATIVE_NUMBER
SMG$$CURRENT_LINE
SMG$$DATA_OFFSET
                                                                                                      .EXTRN
                                                                                                      .EXTRN
                                                                                                      .EXTRN
                                                                                                      .EXTRN
                                                                                                      .EXTRN
                                                                                                      .EXTRN
                                                                                                      .EXTRN
                                                                                                      .EXTRN
                                                                                                      .EXTRN
                                                                                                                 SMG$$DATA_OFFSET
                                                                                                      .EXTRN
                                                                                                                                         SHR, PIC,2
                                                                                                      .PSECT
                                                                                                                 _SMG$CODE,NOWRT,
```

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| SMG\$STRING_TABL TPARSE tables for string to the convert control - convert control - convert co | ng capabilities<br>ert ^ to control  | M 13<br>16-Sep-1984 01:22:35 VAX-11 Bliss-32 V4.0-742<br>characte 14-Sep-1984 13:10:04 [SMGRTL.SRC]SMGSTRTAB.B32;1   | Page 67 (4)  |
|---|--|--|--|
| 00000000G<br>6E<br>54<br>58   | 52 00000000G 00<br>5E 48 A<br>00000000G 00<br>50 14 B<br>50 40 62<br>AC AC 62<br>50 00000000 | 0 9F 00011 PUSHAB SMG\$ MISTERNAM 1 FB 00017 CALLS #1, [IB\$STOP 2 90 0001E 1\$: MOVB a20(AP), CONTROL CHAR 5 8B 00022 BICB3 #64, CONTROL CHAR, MOVE CHAR 6 FA 00027 CALLG (AP), SMG\$\$F[USH_SAVED_BUFFER 7 DO 0002A MOVL #1, 84(AP) 8 9E 0002E MOVAB MOVE CHAR, 88(AP) | 0613<br>0662<br>0664<br>0674<br>0680<br>0688<br>0690<br>0691<br>0693<br>0695 |

; Routine Size: 57 bytes, Routine Base: \_SMG\$CODE + 0000

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SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 CONVERT_ESCAPE - Convert $ to escape character 14-Sep-1984 13:10:04
                                                                                                        VAX-11 Bliss-32 V4.0-742
ESMGRTL.SRCJSMGSTRTAB.B32:1
                                                                                                                                                   Page 68 (5)
                            %SBTTL 'CONVERT_ESCAPE - Convert $ to escape character'
ROUTINE CONVERT_ESCAPE =
   FUNCTIONAL DESCRIPTION:
                                      Stores an escape character in the current capability string in TERMTABLE.EXE.
                              CALLING SEQUENCE:
                                     status = CONVERT_ESCAPE ()
                              FORMAL PARAMETERS:
                                     NONE
                               IMPLICIT INPUTS:
                                               Points to TPARSE parameter block
                               IMPLICIT OUTPUTS:
                                     NONE
                              COMPLETION STATUS:
                                       SS$_NORMAL
                              SIDE EFFECTS:
                                 BEGIN
BUILTIN
                                     CALLG.
                                     AP:
                                 MAP
                                      AP : REF BLOCK [,BYTE];
                                 LITERAL
                                     K_ESCAPE = %X'1B';
                                     CAP_PTRS = .AP [PARAM_L_CUR_TERM_DEF] : VECTOR [,WORD];
                            ! The NAME capability should have preceded this. Complain if it didn't.
                                 IF CAP_PTRS EQL 0
                                     SIGNAL_STOP (SMG$_MISTERNAM);
                              Move an escape character into the capability string instead of the $.
                              Part of the string may already be copied - append in this part so
```

```
SMG$STRING_TABL TPARSE tables for string capabilities #6-Sep-1984 01:22:35 1-003 CONVERT_ESCAPE - Convert $ to escape character 14-Sep-1984 13:10:04
                                                                                                                                     VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32:1
                                                                                                                                                                                            Page (5)
                                       as not to overwrite it.
    68345678668890123456988
                                          CALLG (.AP, SMG$$FLUSH_SAVED_BUFFER);
                                      Insert the escape character.
                                          AP [PARAM_L_SAVED_TOKENCNT] = 1;
AP [PARAM_L_SAVED_TOKENSTR] = UPLIT (BYTE (K_ESCAPE));
! escape now 'saved'
                                          CALLG (.AP, SMG$$FLUSH_SAVED_BUFFER);
                                          RETURN (SS$_NORMAL);
                                          END:
                                                                                                 ! end of routine CONVERT_ESCAPE
                                                                                           00039
0003C P.AAA: .BYTE
                                                                                   0004 00000 CONVERT_ESCAPE:
                                                                                                                            Save R2
SMG$$FLUSH_SAVED_BUFFER, R2
                                                                                                                                                                                                  0699
                                                                                      9E
05
12
9F
                                                                                          00002
                                                           52 00000000G
                                                                                                                MOVAB
                                                                                                                            72(AP)
1$
                                                                                                                                                                                                  0746
                                                                                                                TSTL
                                                                                           00000
                                                                                                                BNEQ
                                                                                00
01
60
01
                                                                0000000G
                                                                                          0000E
                                                                                                                PUSHAB
                                                                                                                            SMG$ MISTERNAM
#1, CIB$STOP
                                                                                                                                                                                                  0748
                                                                                      FB
FA
DO
                                          0000000G
                                                                                          00014
                                                           00
62
62
62
65
65
                                                                                                                CALLS
                                                                                                                            (AP), SMG$$FLUSH_SAVED_BUFFER
#1, 84(AP)
P.AAA, 88(AP)
(AP), SMG$$FLUSH_SAVED_BUFFER
#1, RO
                                                                                                                                                                                                  0758
0764
0765
0767
                                                                                           0001B 1$:
                                                                                                                CALLG
                                                   54
58
                                                                                          0001E
                                                                                                                MOVL
                                                                                      PE
FA
DO
                                                                                          00022
                                                                                                                MOVAB
                                                                                                                CALLG
                                                                                                                                                                                                  0769
0771
                                                                                                                MOVL
                                                                                           0002D
                                                                                                                RET
```

Routine Base: \_SMG\$CODE + 003D

; Routine Size: 46 bytes,

SM(

```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 EXPRESSION_ERROR - Signal and expression error 14-Sep-1984 13:10:04
                                                                                                                        VAX-11 Bliss-32 V4.0-742
ESMGRTL.SRCJSMGSTRTAB.B32:1
                                                                                                                                                                         Page 70 (6)
                                 %SBTTL 'EXPRESSION_ERROR - Signal and expression error'
ROUTINE EXPRESSION_ERROR =
   FUNCTIONAL DESCRIPTION:
                                            Signal that an invalid arithmetic expression was found.
                                   CALLING SEQUENCE:
                                           status = EXPRESSION_ERROR ()
                                   FORMAL PARAMETERS:
                                           NONE
                                   IMPLICIT INPUTS:
                                           AP
                                                      Points to TPARSE parameter block
                                   IMPLICIT OUTPUTS:
                                           NONE
                                   COMPLETION STATUS:
                                             SS$_NORMAL
                                   SIDE EFFECTS:
                                      BEGIN
                                      BUILTIN
                                      MAP
                                           AP : REF BLOCK [,BYTE];
                                      SIGNAL_STOP (SMG$_ERRAT_LIN,
3, .SMG$$CURRENT_LINE,
.AP [TPA$L_TOKENENT],
.AP [TPA$L_TOKENPTR],
SMG$_INVEXP)
                                      END:
                                                                                       ! end of routine EXPRESSION_ERROR
```

0000 00000 EXPRESSION ERROR: Save nothing SMG\$ INVEXP 16(AP), -(SP) SMG\$\$CURRENT\_LINE 00002 00008 00000 00012 9F 7D DD 00 AC 00 03 PUSHAB PVOM PUSHL DD PUSHL

0000000G

0000000G

SMG\$STRING\_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 VAX-11 Bliss-32 V4.0-742 Page 71 1-003 EXPRESSION\_ERROR - Signal and expression error 14-Sep-1984 13:10:04 [SMGRTL.SRC]SMGSTRTAB.B32;1 (6) 00000000G 00 9F 00014 PUSHAB SMG\$ ERRAT LIN CALLS #6, [IB\$STOP : 0817

; Routine Size: 34 bytes, Routine Base: \_SMG\$CODE + 006B

```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 END_ARITH_CAP - End of arithmetic capability da 14-Sep-1984 13:10:04
                                                                                                                           VAX-11 Bliss-32 V4.0-742
ESMGRTL.SRCJSMGSTRTAB.B32:1
                                                                                                                                                                             Page
                      0818
0819
0820
0821
                                 %SBTTL 'END_ARITH_CAP - End of arithmetic capability data'
ROUTINE END_ARITH_CAP =
    FUNCTIONAL DESCRIPTION:
                                            We have found the end of an arithmetic expression (a right parenthesis). An arithmetic expression should be terminated
                                            by the encoded type SMG$K_STORE, indicating that the final value has been computed.
                                    CALLING SEQUENCE:
                                            status = END_ARITH_CAP ()
                                    FORMAL PARAMETERS:
                                            NONE
                                    IMPLICIT INPUTS:
                                            AP
                                                       Points to TPARSE parameter block
                                    IMPLICIT OUTPUTS:
                                            NONE
                                    COMPLETION STATUS:
                                              SS$_NORMAL
                                    SIDE EFFECTS:
   BEGIN
                                       BUILTIN
                                            CALLG.
                                            AP:
                                       MAP
                      0859
0860
0861
0862
0863
0864
0865
0866
0867
0870
0871
0873
                                            AP : REF BLOCK [,BYTE];
                                 Indicate end of computing.
                                       AP [PARAM_L_SAVED_TOKENENT] = 1;
AP [PARAM_L_SAVED_TOKENSTR] = UPLIT (BYTE (SMG$K_STORE));
                                       CALLG (.AP, SMG$$FLUSH_ARITHMETIC);
                                                                                         ! move the data
                                       AP [TPA$V_BLANKS] = 1;
                                                                                         ! look at blanks again
                                       RETURN (SS$_NORMAL);
```

| SMG\$STRING_TABL | TPARSE tabl                                | es for stri<br>AP - End of | ing cap                    | abilitie<br>metic ca | s<br>pabi                  | lity da  | F 14<br>6-Sep-19<br>4-Sep-19 | 984 01:22<br>984 13:10                        | 2:35 VAX-11 Bliss-32 V4.0-742<br>0:04 [SMGRTL.SRC]SMGSTRTAB.B32:1                                   | Page 7   |
|------------------|--|----------------------------|----------------------------|----------------------|----------------------------|--|------------------------------|---|---|--|
| ; 804            | 0875 1 END; ! end of routine END_ARITH_CAP |                            |                            |                      |                            |  |                              |   |   |  |
|                  |  |                            |                            |                      |                            | 7 00080  | P.AAB:                       | .BLKB<br>.BYTE                                | 3,9   |  |
|                  |  | 00000000G<br>04            | AC<br>AC<br>OO<br>AC<br>50 | F6                   | 01<br>AF<br>6C<br>01<br>01 | DO 00000<br>PE 00000<br>FA 00000<br>88 00012<br>DO 00016<br>04 00019 | END_AR                       | TH CAP: .WORD MOVL MOVAB CALLG BISB2 MOVL RET | Save nothing<br>#1, 84(AP)<br>P.AAB, 88(AP)<br>(AP), SMG\$\$FLUSH_ARITHMETIC<br>#1, 4(AP)<br>#1, R0 | ; 081<br>; 086<br>; 086<br>; 087<br>; 087<br>; 087 |

```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 INIT_ARITH_CAP - Initialize arithmetic capabili 14-Sep-1984 13:10:04
                                                                                                                                   VAX-11 Bliss-32 V4.0-742
ESMGRTL.SRCJSMGSTRTAB.B32:1
                                                                                                                                                                                         Page
                                    %SBTTL 'INIT_ARITH_CAP - Initialize arithmetic capability data'
ROUTINE INIT_ARITH_CAP =
    806
807
808
809
810
                        0876
0877
0878
0879
                       FUNCTIONAL DESCRIPTION:
                                               We have found the beginning of an arithmetic expression (a left parenthesis). Before moving operands and operators into the data area, initialize it as an arithmetic capability, ie. tart with a negative length and a type of SMG$K_ARITH_STRING.
                                       CALLING SEQUENCE:
                                                status = INIT_ARITH_CAP ()
    FORMAL PARAMETERS:
                                                NONE
                                       IMPLICIT INPUTS:
                                                            Points to TPARSE parameter block
                                       IMPLICIT OUTPUTS:
                                                NONE
                                       COMPLETION STATUS:
                                                 SS$_NORMAL
                                       SIDE EFFECTS:
                                          BEGIN
                                          BUILTIN
                                                CALLG.
                                                AP:
                                          MAP
                                                AP : REF BLOCK [,BYTE];
                                          LOCAL
                                                FIRST : INITIAL (0),
                                                                                                ! flag to indicate start of string
    851
852
853
854
855
856
857
858
                                                                                                ! where to copy data
                                                START_CAP_STRING;
                                          MAP
                                                START_CAP_STRING : REF VECTOR [,BYTE,SIGNED];
                                                CAP_PTRS = .AP [PARAM_L_CUR_TERM_DEF] : VECTOR [,WORD];
                                       The NAME capability should have preceded any arithmetic capability. Complain if it didn't.
    860
861
862
```

SM 1-

```
TPARSE tables for string capabilities 16-Sep-1984 01:22:35 INIT_ARITH_CAP - Initialize arithmetic capabili 14-Sep-1984 13:10:04
SMG$STRING_TABL
                                                                                                                                   VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32;1
                                                                                                                                                                                         Fage
                                          IF CAP_PTRS EQL 0
    863
864
865
                       SIGNAL_STOP (SMG$_MISTERNAM);
    866
867
868
869
870
                                      We may have copied some normal text before we encountered an
                                      arithmetic expression. Find the start of the string, and make
                                      sure that there isn't some more saved text.
    871
872
873
874
875
876
877
                                          CALLG (.AP, SMG$$FLUSH_SAVED_BUFFER);
                                          IF .CAP_PTRS [.AP [PARAM_L_CUR_CAP_NUMBER]] NEQ O
                                                BEGIN
                                                  Not start of the capability string.
    880
    881
882
883
884
885
                                               START_CAP_STRING = .AP [PARAM_L_CUR_TERM_DEF] + .CAP_PTRS [.AP [PARAM_L_CUR_CAP_NUMBER]];
                                                END
                                         ELSE
    886
887
                                                  First byte of capability string. Set offset pointer.
                                              BEGIN

FIRST = 1;

START_CAP_STRING = .AP [PARAM_L_CUR_DATA_BYTE];

CAP_PTRS [.AP [PARAM_L_CUR_CAP_NUMBER]] = .SMG$$DATA_OFFSET;

SMG$$DATA_OFFSET = .SMG$$DATA_OFFSET + 2;
    888
889
    890
891
    892
893
                                                                                                   leave space for at least size, type
    894
895
896
897
                                               END:
                                          IF .FIRST
    898
899
900
                                               AP [PARAM_L_CUR_DATA_BYTE] = .AP [PARAM_L_CUR_DATA_BYTE] + 2;
! space for size & type bytes
    901
                                      If some other things preceded this arithmetic expression, we need to move them over by 2 bytes to make room for a size and type.
    904
905
                                         IF NOT .FIRST
    908
                                               BEGIN
                                                                                               ! not first byte in capability
    909
                                               LOCAL
                                               TYPE = .START_CAP_STRING [1]; ! make this a longword
                                                IF .TYPE NEQ SMG$K_ARITH_STRING
                                                THEN
                                                     BEGIN
                                                                                               ! first expression
                                                        We don't allow mixing of FAO strings and arithmetic expressions. We know the type isn't arithmetic, so if the length is negative, there must be an FAO string.
```

```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 INIT_ARITH_CAP - Initialize arithmetic capabili 14-Sep-1984 13:10:04
                                                                                                                             VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32:1
                                                                                                                                                                                 Page
    0990
0991
0992
0993
0994
0995
0996
0998
0999
1000
1001
1005
1006
1007
1008
                                                       .START_CAP_STRING [O] LSS O
                                                        SIGNAL_STOP (SMG$ ERRAT LIN,
3, .SMG$$CORRENT LINE,
.AP [PARAM_L_SAVED_TOKENCNT],
.AP [PARAM_L_SAVED_TOKENSTR],
SMG$_SYNERR);
                                                     Slide over text.
                                                   CH$MOVE (.START_CAP_STRING [0] + 2, !
START_CAP_STRING [0],
START_CAP_STRING [2]);
                                                                                                         # chars + size, type bytes
                                                                                                         from old location
                                                                                                         to new
                                                      Need a negative size. The size includes the data,
                                                      the size byte and the type byte.
    940
941
942
943
                       1010
                                                      Note that right now, the size of the normal text is the size of
                       1011
                                                      the entire capability string.
                       1012
                                                   IF .START_CAP_STRING [0] GTR 0
                       1014
1015
1016
1017
   THEN
                                                        START_CAP_STRING [0] = -.START_CAP_STRING [0] - 4;
! size + 2 size & type bytes
                       1018
                                                   AP [PARAM_L_CUR_DATA_BYTE] = .AP [PARAM_L_CUR_DATA_BYTE] + 2;

! update next free byte
                                                   SMG$$DATA_OFFSET = .SMG$$DATA_OFFSET + 2;
                                                                                             update next offset first expression
                                                   END;
                                             END
                                                                                           ! not first byte in capability
                                        ELSE
                                             START_CAP_STRING [0] = .START_CAP_STRING [0] - 2; include size & type bytes for
                                                                                             arith in count
                       1031
1032
1033
1034
1035
1036
                                        START_CAP_STRING [1] = SMG$K_ARITH_STRING <0,8>;
                                                                                           ! set (or reset) as arith string
                                       AP [TPA$V_BLANKS] = 0;
                                                                                           ! ignore blanks between ( )
                                        RETURN (SS$_NORMAL);
                       1038
                                        END:
                                                                                           ! end of routine INIT_ARITH_CAP
```

01FC 00000 INIT\_ARITH\_CAP: .WORD Save R2,R3,R4,R5,R6,R7,R8 58 00000000G 00 9E 00002 MOVAB LIB\$STOP, R8

: 0877

| SMG\$STRING_TABL TP | PARSE<br>NIT_AR | tables | for string                             | capabilitie<br>ize arithmet | s<br>ic   | capa  | bili 1  | 14<br>S-Sep-         | 1984 01:22<br>1984 13:10  | :35 VAX-11 Bliss-32 V4.0-742 Pag<br>:04 [SMGRTL.SRC]SMGSTRTAB.B32;1   | ge 77<br>(8)   |
|---------------------|-----------------|--------|--|-----------------------------|---|---|---|----------------------|---|---|--|
|                     |                 | C      | 52<br>52<br>52<br>50<br>50<br>50<br>50 | 000000006                   | 03<br>A09<br>001<br>001<br>000<br>001<br>000<br>000<br>000<br>000<br>000<br>0 | 9E<br>04<br>00<br>12<br>9F<br>F B<br>00<br>B S  | 00018<br>0001E<br>00021<br>00028                            | 1\$:                 | MOVAB<br>CLRL<br>MOVL<br>BNEQ<br>PUSHAB<br>CALLS<br>CALLS<br>MOVL<br>TSTW<br>BEQL                 | SMG\$\$DATA_OFFSET, R7 FIRST 72(AP), R2 1\$ SMG\$_MISTERNAM #1, LIB\$STOP (AP), SMG\$\$FLUSH_SAVED_BUFFER 80(AP), R0 (R2)[R0]   | 0911<br>0926<br>0933<br>0935<br>0945                                 |
|                     |                 |        | 56<br>56<br>6240                       | 46                          | 240A<br>240C<br>240C<br>240C<br>240C<br>240C<br>240C<br>240C<br>240C          | 13<br>3<br>0<br>11<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 0002F<br>00031<br>00035<br>00039<br>0003B                   | 2\$:<br>3\$:         | MOVZWL<br>ADDL2<br>BRB<br>MOVL  | (R2)[R0], START CAP STRING 72(AP), START_CAP_STRING 3\$ #1, FIRST 76(AP), START_CAP_STRING SMG\$\$DATA_OFFSET, (R2)[R0] #2, SMG\$\$DATA_OFFSET FIRST, 4\$ #2, 76(AP)    | 0952<br>0945<br>0959<br>0960<br>0961<br>0962<br>0967<br>0969<br>0981 |
|                     |                 | F      | 4C A(<br>4)<br>50<br>FFFFFFFE 8F       | 000000000<br>000000000      | 0536006B0C0   | 00<br>E8<br>98<br>D1<br>13<br>95<br>18<br>97  | 0004C<br>00050<br>00057<br>00057<br>00060<br>00062<br>00064 | 45:                  | MOVW<br>ADDL2<br>BLBC<br>ADDL2<br>BLBS<br>CVTBL<br>CMPL<br>BEQL<br>TSTB<br>BGEQ<br>PUSHAB         | 1(START_CAP_STRING), TYPE TYPE, #=2 8\$ (START_CAP_STRING) 5\$ SMG\$_SYNERR   | 0969<br>0981<br>0983<br>0991<br>0993<br>0995                         |
|                     | 02              | A6     | 68<br>50<br>66                         | 000000006                   | 03<br>06<br>60<br>50  | DD 9 F 8 0 2 9 5  | 0006E<br>00076<br>00076<br>0007C<br>0007F<br>00082          | 5\$:                 | MOVQ<br>PUSHL<br>PUSHAB<br>CALLS<br>CVTBL<br>ADDL2<br>MOVC3<br>TSTB                               | 84(AP), -(SP) SMG\$\$CURRENT_LINE #3 SMG\$_ERRAT_LIN #6, [IB\$STUP (START_CAP_STRING), RO #2, RO RO, (START_CAP_STRING), 2(START_CAP_STRING) (START_CAP_STRING)         | 1002<br>1004<br>1013   |
|                     |                 |        | 4c Ac 66                               |                             | 066<br>042<br>023<br>032<br>011   | 8E<br>82<br>C0<br>111<br>82<br>8E<br>8A<br>004  | 000A4<br>000A8  | 6\$:<br>7\$:<br>8\$: | TSTB<br>BLEQ<br>MNEGB<br>SUBB2<br>ADDL2<br>ADDL2<br>BRB<br>SUBB2<br>MNEGB<br>BICB2<br>MOVL<br>RET | 6\$ (START_CAP_STRING), (START_CAP_STRING) #4, (START_CAP_STRING) #2, 76(AP) #2, SMG\$\$DATA_OFFSET 8\$ #2, (START_CAP_STRING) #2, 1(START_CAP_STRING) #1, 4(AP) #1, R0 | 1015<br>1018<br>1020<br>0976<br>1026<br>1031<br>1034<br>1036<br>1038 |

; Routine Size: 172 bytes, Routine Base: \_SMG\$CODE + 00AB

```
TPARSE tables for string capabilities 16-Sep-1984 01:22:35 INSERT_CARROT - Insert a in the capability st 14-Sep-1984 13:10:04
 SMG$STRING_TABL
                                                                                                                                                                                                                                                                                                                                                           VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32:1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Page 78 (9)
                                                                                               %SBTTL 'INSERT_CARROT - Insert a ^ in the capability string'
ROUTINE INSERT_CARROT =
                                                                1039
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1
        FUNCTIONAL DESCRIPTION:
                                                                                                                               Stores a * character in the current capability string in TERMTABLE.EXE.
                                                                                                       CALLING SEQUENCE:
                                                                                                                               status = INSERT_CARROT ()
                                                                                                       FORMAL PARAMETERS:
                                                                                                                               NONE
                                                                                                       IMPLICIT INPUTS:
                                                                                                                                                              Points to TPARSE parameter block
                                                                                                       IMPLICIT OUTPUTS:
                                                                                                                               NONE
                                                                                                       COMPLETION STATUS:
                                                                                                                                   SS$_NORMAL
                                                                                                       SIDE EFFECTS:
                                                                                                               BEGIN
                                                                                                               BUILTIN
                                                                                                                               CALLG,
                                                                                                                               AP:
                                                                                                               MAP
                                                                                                                               AP : REF BLOCK [,BYTE];
                                                                1080
1081
1082
1083
1084
1085
1086
1087
1088
1090
1091
1092
1093
1094
                                                                                                       If this is not the NAME capability and we have no pointers set up for the terminal definition, then NAME was not the first capability
                                                                                                       in the definition. Complain.
                                                                                                               BEGIN
                                                                                                               BIND
                                                                                                                               CAP_PTRS = .AP [PARAM_L_CUR_TERM_DEF] : VECTOR [, WORD];
                                                                                                                IF CAP_PTRS EQL 0
                                                                                                                THEN
                                                                                                                               SIGNAL_STOP (SMG$_MISTERNAM);
                                                                                                ! Move the capability data. The byte count is in the first byte and
```

.....

```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 INSERT_CARROT - Insert a "in the capability st 14-Sep-1984 13:10:04
                                                                                                                                       VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32:1
                                                                                                                                                                                                     (9)
                                                                                                                                                                                              Page
  1027
1028
1029
1033
1033
1033
1033
1033
1033
1041
1043
1044
1045
                        the actual data follows.
                                       Part of the string may already be copied - append in this part so as not to overwrite it. (This can happen if escape or control are
                                        part of the sequence.)
                                           CALLG (.AP, SMG$$FLUSH_SAVED_BUFFER);
! copy sa
                                                                                        copy saved string
                                           AP [PARAM_L_SAVED_TOKENENT] = 1;
AP [PARAM_L_SAVED_TOKENSTR] = UPLIT ('^');
                                                                                        carrot is now 'saved'
                                           CALLG (.AP, SMG$$FLUSH_SAVED_BUFFER);
                                           END:
                                                                                                  ! end of BINDs scope
                                           RETURN (SS$_NORMAL);
                                           END:
                                                                                                  ! end of routine INSERT_CARROT
                                                                                            00157
00158 P.AAC: .ASCII \^\<0><0><0>
                                                                                    0004 00000 INSERT_CARROT:
                                                                                                                  . WORD
                                                                                                                             Save R2
SMG$$FLUSH_SAVED_BUFFER, R2
                                                                                                                                                                                                    1040
                                                                                       9E
05
12
9F
                                                            52 00000000G
                                                                                                                 MOVAB
                                                                                                                              72(AP)
                                                                                 AC
                                                                                            00009
                                                                                                                                                                                                    1090
                                                                                                                 TSTL
                                                                                 OD
                                                                                            0000C
                                                                                                                 BNEQ
                                                                                                                             SMG$_MISTERNAM
#1, CIB$STOP
(AP), SMG$$FLUSH_SAVED_BUFFER
#1, 84(AP)
P.AAC, 88(AP)
(AP), SMG$$FLUSH_SAVED_BUFFER
#1, R0
                                                                0000000G
                                                                                 00
                                                                                           0000E
                                                                                                                 PUSHAB
                                                                                                                                                                                                    1092
                                                                                 01
                                                                                                                 CALLS
CALLG
MOVL
                                           0000000G
                                                           00
62
AC
62
650
                                                                                       FB
                                                                                            00014
                                                                                 6C
01
                                                                                       FAO PE A DO 4
                                                                                            0001B 1$:
                                                                                                                                                                                                    1103
                                                    54
58
                                                                                            0001E
                                                                                                                                                                                                    1105
                                                                                 AF
6C
01
                                                                                                                                                                                                    1106
1108
1112
1114
                                                                                           00022
                                                                         D7
                                                                                                                 MOVAB
                                                                                                                 CALLG
                                                                                            0002A
                                                                                                                 MOVL
                                                                                            0002D
                                                                                                                 RET
; Routine Size: 46 bytes,
                                              Routine Base: _SMG$CODE + 015C
```

```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 INSERT_DOLLAR - Insert a $ into a capability st 14-Sep-1984 13:10:04
                                                                                                                  VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32:1
                                                                                                                                                                 Page 80
(10)
                               %SBTTL 'INSERT_DOLLAR - Insert a $ into a capability string'
ROUTINE INSERT_DOLLAR =
  FUNCTIONAL DESCRIPTION:
                                         Stores a $ character in the current capability string in TERMTABLE.EXE.
                                  CALLING SEQUENCE:
                                         status = INSERT_DOLLAR ()
                                 FORMAL PARAMETERS:
                                         NONE
                                  IMPLICIT INPUTS:
                                         AP
                                                    Points to TPARSE parameter block
                                  IMPLICIT OUTPUTS:
                                         NONE
                                 COMPLETION STATUS:
                                           SS$_NORMAL
                                 SIDE EFFECTS:
                                    BEGIN
                                    BUILTIN
                                         CALLG.
                                    MAP
                                         AP : REF BLOCK [,BYTE];
                                         CAP_PTRS = .AP [PARAM_L_CUR_TERM_DEF] : VECTOR [, WORD];
                                 If this is not the NAME capability and we have no pointers set up for the terminal definition, then NAME was not the first capability
                                 in the definition. Complain.
                                    IF CAP_PTRS EQL 0
                                         SIGNAL_STOP (SMG$_MISTERNAM);
                                 Move the capability data. The byte count is in the first byte and the actual data follows.
```

SI

```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 INSERT_DOLLAR - Insert a $ into a capability st 14-Sep-1984 13:10:04
                                                                                                                                                 VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32;1
                                                                                                                                                                                                             Page
                                                                                                                                                                                                                   (10)
                                           Part of the string may already be copied - append in this part so as not to overwrite it. (This can happen if escape or control are
   1104
1105
1106
1107
1108
1109
1110
1111
1112
1113
1114
1115
                          1173
1174
1175
1176
1177
1178
1179
1180
1181
1183
1184
1185
1186
                                           part of the sequence.)
                                              CALLG (.AP, SMG$$FLUSH_SAVED_BUFFER);
                                              AP [PARAM_L_SAVED_TOKENENT] = 1;
AP [PARAM_L_SAVED_TOKENSTR] = UPLIT ('$');
! $ is now 'saved'
                                              CALLG (.AP, SMG$$FLUSH_SAVED_BUFFER);
! append $
                                              RETURN (SS$_NORMAL);
   1119
                                              END:
                                                                                                          ! end of routine INSERT_DOLLAR
                                                                                                   0018A .BLKB
0018C P.AAD: .ASCII
                                                                                                                                       $$\<0><0><0>
                                                                               00
                                                                                                                                                                                                                :
                                                                                           0004 00000 INSERT_DOLLAR:
                                                                                                                           . WORD
                                                                                                                                                                                                                 : 1116
                                                                                                                                       SMG$$FLUSH_SAVED_BUFFER, R2 72 (AP)
                                                                52 00000000G
48
                                                                                                   00002
                                                                                                                           MOVAB
                                                                                              05
12
9F
                                                                                                                           TSTL
                                                                                                                                                                                                                   1164
                                                                                                   0000C
                                                                                       0D
00
01
6C
01
                                                                                                                           BNEQ
                                                                                                                                       SMG$_MISTERNAM
#1, CIB$STOP
(AP), SMG$$FLUSH_SAVED_BUFFER
#1, 84(AP)
P.AAD, 88(AP)
(AP), SMG$$FLUSH_SAVED_BUFFER
#1, R0
                                                                      0000000G
                                                                                                   0000E
                                                                                                                           PUSHAB
                                                                                                                                                                                                                   1166
                                              0000000G
                                                                                              FB
                                                                                                   00014
                                                                                                                           CALLS
                                                                                                   0001B 1$:
                                                                                                                           CALLG
                                                                                                                                                                                                                    1177
                                                                                                  0001E
00022
00027
                                                                                              DO
9E
FA
DO
                                                        54
58
                                                                                                                           MOVL
                                                                                                                                                                                                                    1179
                                                                                       AF
60
01
                                                                               D7
                                                                                                                           MOVAB
                                                                                                                                                                                                                    1180
                                                                                                                                                                                                                   1182
1185
                                                                                                                           CALLG
                                                                                                   0002A
                                                                                                                           MOVL
                                                                                                   0002D
                                                                                                                           RET
                                                                                                                                                                                                                    1187
; Routine Size: 46 bytes,
                                                 Routine Base: _SMG$CODE + 0190
```

.............

...........

```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 INSERT_EXCLAMATION - Insert a ! into a capabili 14-Sep-1984 13:10:04
                                                                                                                                 VAX-11 Bliss-32 V4.0-742
ESMGRTL.SRCJSMGSTRTAB.B32:1
                       1188
1189
1190
1191
                                   *SBTTL 'INSERT_EXCLAMATION - Insert a ! into a capability string'
ROUTINE INSERT_EXCLAMATION =
  1193
1195
1196
1197
1198
1198
11203
11207
11208
11208
11213
11213
11213
11213
11213
                                     FUNCTIONAL DESCRIPTION:
                                               Stores a ! character in the current capability string in
                                               TERMTABLE.EXE.
                                      CALLING SEQUENCE:
                                               status = INSERT_EXCLAMATION ()
                                      FORMAL PARAMETERS:
                                               NONE
                                      IMPLICIT INPUTS:
                                               AP
                                                          Points to TPARSE parameter block
                                      IMPLICIT OUTPUTS:
                                               NONE
                                      COMPLETION STATUS:
                                                SS$_NORMAL
                        1216
1217
1218
1219
1220
1221
                                     SIDE EFFECTS:
  1151
  1152
1153
1154
1155
1156
1157
                                         BEGIN
BUILTIN
                                               CALLG.
                                         MAP
  1159
                                               AP : REF BLOCK [,BYTE];
  1160
                                              CAP_PTRS = .AP [PARAM_L_CUR_TERM_DEF] : VECTOR [,WORD];
  1162
1163
  1164
1165
1166
1167
1168
1169
1170
1171
1172
1173
1174
1175
1176
                                      If this is not the NAME capability and we have no pointers set up for the terminal definition, then NAME was not the first capability
                                      in the definition. Complain.
                                         IF CAP_PTRS EQL 0
                                               SIGNAL_STOP (SMG$_MISTERNAM);
                                     Move the capability data. The byte count is in the first byte and
                                      the actual data follows.
                                     Part of the string may already be copied - append in this part so
```

\*\*

Page 82 (11)

```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 INSERT_EXCLAMATION - Insert a ! into a capabili 14-Sep-1984 13:10:04
                                                                                                                                   VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32:1
                                                                                                                                                                                              (11)
                                                                                                                                                                                         Page
  1178
1179
1180
1181
1182
1183
1184
1185
1186
1189
1190
1191
1192
                                      as not to overwrite it. (This can happen if escape or control are
                                      part of the sequence.)
                                         CALLG (.AP, SMG$$FLUSH_SAVED_BUFFER);
                                         AP [PARAM_L_SAVED_TOKENCNT] = 1;
AP [PARAM_L_SAVED_TOKENSTR] = UPLIT ('!');
! exclamation is now 'saved'
                                         CALLG ( AP, SMG$$FLUSH_SAVED_BUFFER); ! append!
                                          RETURN (SS$_NORMAL);
                                          END:
                                                                                               ! end of routine INSERT_EXCLAMATION
                                                                                         0004 00000 INSERT_EXCLAMATION:
                                                                                                                          Save R2
SMG$$FLUSH_SAVED_BUFFER, R2
72(AP)
1$
                                                                                                               . WORD
                                                                                                                                                                                              1189
                                                                                     9E
05
12
9F
                                                          52 00000000G
                                                                                                              MOVAB
                                                                               00
AC
00
00
01
60
AF
60
01
                                                                                                              TSTL
                                                                                                                                                                                               1236
                                                                                         0000C
                                                                                                              BNEQ
                                                                                                                         SMG$_MISTERNAM
#1, CIB$STOP
(AP), SMG$$FLUSH_SAVED_BUFFER
#1, 84(AP)
P.AAE, 88(AP)
(AP), SMG$$FLUSH_SAVED_BUFFER
#1, R0
                                                               0000000G
                                                                                         0000E
                                                                                                              PUSHAB
                                                                                                                                                                                               1238
                                          0000000G
                                                                                     FB
                                                                                         00014
                                                          00
62
AC
62
650
                                                                                                              CALLS
                                                                                     FOOE AO
                                                                                         0001B 1$:
                                                                                                              CALLG
                                                                                         0001E
00022
00027
0002A
                                                  54
                                                                                                              MOVL
                                                                       D7
                                                                                                              MOVAB
                                                                                                              CALLG
                                                                                                              MOVL
                                                                                         0002D
                                                                                                              RET
; Routine Size: 46 bytes,
                                            Routine Base: _SMG$CODE + 01C4
```

```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 INSERT_PARENTHESIS - Insert a (into a capabili 14-Sep-1984 13:10:04
                                                                                                             VAX-11 Bliss+32 V4.0-742
ESMGRTL.SRCJSMGSTRTAB.B32:1
                                                                                                                                                              (12)
                             %SBTTL 'INSERT_PARENTHESIS - Insert a ( into a capability string' ROUTINE INSERT_PARENTHESIS =
  FUNCTIONAL DESCRIPTION:
                                       Stores a (character in the current capability string in TERMTABLE.EXE.
                                CALLING SEQUENCE:
                                       status = INSERT_PARENTHESIS ()
                                FORMAL PARAMETERS:
                                       NONE
                                IMPLICIT INPUTS:
                                       AP
                                                 Points to TPARSE parameter block
                                IMPLICIT OUTPUTS:
                                       NONE
                                COMPLETION STATUS:
                                        SS$_NORMAL
                                SIDE EFFECTS:
                                  BEGIN
                                  BUILTIN
                                       CALLG,
                                  MAP
                                       AP : REF BLOCK [,BYTE];
                                       CAP_PTRS = .AP [PARAM_L_CUR_TERM_DEF] : VECTOR [, WORD];
                                If this is not the NAME capability and we have no pointers set up for the terminal definition, then NAME was not the first capability
                               in the definition. Complain.
                                   IF CAP_PTRS EQL O
                                       SIGNAL_STOP (SMG$_MISTERNAM);
                                Move the capability data. The byte count is in the first byte and
                                the actual data follows.
                                Part of the string may already be copied - append in this part so
```

```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 INSERT_PARENTHESIS - Insert a (into a capabili 14-Sep-1984 13:10:04
                                                                                                                           VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32;1
                                                                                                                                                                                   (12)
                                    as not to overwrite it. (This can happen if escape or control are
                                    part of the sequence.)
                                       CALLG (.AP, SMG$$FLUSH_SAVED_BUFFER);
                                       AP [PARAM_L_SAVED_TOKENCNT] = 1;
AP [PARAM_L_SAVED_TOKENSTR] = UPLIT ('(');
! ( is now saved
                                       CALLG (.AP, SMG$$FLUSH_SAVED_BUFFER);
! append (
                                       RETURN (SS$_NORMAL);
                                       END:
                                                                                          ! end of routine INSERT_PARENTHESIS
                                                                                    001F2 .BLKB 2
001F4 P.AAF: .ASCII \(\<0><0><0>
                                                                   00
                                                                             0004 00000 INSERT_PARENTHESIS:
                                                                                                                  Save R2
SMG$$FLUSH_SAVED_BUFFER, R2
72(AP)
1$
                                                                                                        . WORD
                                                                                                                                                                                 : 1261
                                                       52 00000000G
                                                                                                        MOVAB
                                                                                    00009
                                                                                                                                                                                   1308
                                                                                                        TSTL
                                                                               12
9F
                                                                                    00000
                                                                                                        BNEQ
                                                                                                                   SMG$_MISTERNAM
#1, CIB$STOP
(AP), SMG$$FLUSH_SAVED_BUFFER
#1, 84(AP)
                                                           0000000G
                                                                          ÕÕ
                                                                                    0000E
                                                                                                        PUSHAB
                                                                                                                                                                                   1310
                                       0000000G
                                                                          ÕĬ
                                                                                    00014
                                                      00
62
62
650
                                                                                                        CALLS
                                                                                                                                                                                   1321
1323
1324
1326
1329
1331
                                                                          6C
01
AF
6C
01
                                                                                    0001B 1$:
                                                                                                        CALLG
                                                                                   0001E
00022
00027
                                               54
                                                                                DO
                                                                                                                   P.AAF, 88(AP)
(AP), SMG$$FLUSH_SAVED_BUFFER
#1, RO
                                                                   D7
                                                                                9E
                                                                                                        MOVAB
                                                                                                        CALLG
                                                                                                        MOVL
                                                                                    0002D
                                                                                                        RET
; Routine Size: 46 bytes.
                                          Routine Base: _SMG$CODE + 01F8
```

```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 INVALID_DIRECTIVE - signal invalid directive er 14-Sep-1984 13:10:04
                                                                                                                              VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32;1
                                  %SBTTL 'INVALID_DIRECTIVE - signal invalid directive error'
ROUTINE INVALID_DIRECTIVE =
  FUNCTIONAL DESCRIPTION:
                                              Following a !, we have found some directive we don't handle.
                                              Signal an error.
                                     CALLING SEQUENCE:
                                             status = INVALID_DIRECTIVE ()
                                     FORMAL PARAMETERS:
                                             NONE
                                     IMPLICIT INPUTS:
                                             AP
                                                         Points to TPARSE parameter block
                                     IMPLICIT OUTPUTS:
                                             NONE
                                     COMPLETION STATUS:
                       1360
1361
1362
1363
1364
1365
1366
1367
1371
1372
1373
                                               SS$_NORMAL
                                    SIDE EFFECTS:
                                        BEGIN
                                        BUILTIN
                                             AP;
                                             AP : REF BLOCK [,BYTE];
                                       SIGNAL_STOP (SMG$_ERRAT_LIN,
3, .SMG$$CURRENT_LINE,
.AP [TPA$L_TOKENENT],
.AP [TPA$L_TOKENPTR],
SMG$_INVDIR)
                                        END:
                                                                                ! end of routine INVALID_DIRECTIVE
```

0000 00000 INVALID\_DIRECTIVE: Save nothing SMG\$ INVDIR 16(AP), -(SP) . WORD 00002 00008 00000 00012 00 AC 00 03 9F 7D DD PUSHAB PVOM SMG\$\$CURRENT\_LINE PUSHL

PUSHL

00000000G 0000000G

SMG\$STRING\_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 VAX-11 Bliss-32 V4.0-742 Page 87 1-003 INVALID\_DIRECTIVE - signal invalid directive er 14-Sep-1984 13:10:04 [SMGRTL.SRC]SMGSTRTAB.B32;1 (13)

00000000G 00 00 9F 00014 PUSHAB SMG\$ ERRAT LIN CALLS #6, [IB\$STOP : 1377

; Routine Size: 34 bytes, Routine Base: \_SMG\$CODE + 0226

```
H 15
16-Sep-1984 01:22:35
14-Sep-1984 13:10:04
SMG$STRING_TABL TPARSE tables for string capabilities 1-003 STORE_OPERAND - Store arithmetic operand
                                                                                                                         VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32;1
                                 %SBTTL 'STORE_OPERAND - Store arithmetic operand'
ROUTINE STORE_OPERAND =
  1113738886789012345678901234567890112345678901234
1113738888901234567890012345678901123456789012345678901234
                                   FUNCTIONAL DESCRIPTION:
                                            We have just found an operand which we need to store in TERMTABLE. We will also check to see if an operator was previously found and
                                            needs to be stored.
                                    CALLING SEQUENCE:
                                            status = STORE_OPERAND ()
                                   FORMAL PARAMETERS:
                                            NONE
                                    IMPLICIT INPUTS:
                                                       Points to TPARSE parameter block
                                    IMPLICIT OUTPUTS:
                                            NONE
                                    COMPLETION STATUS:
                                             SS$_NORMAL
                                   SIDE EFFECTS:
                                      BEGIN
                                      BUILTIN
                                            CALLG.
                                      MAP
                                            AP : REF BLOCK [,BYTE];
                                            COPY_BUFFER : VECTOR [7,BYTE]; ! construct bytes to copy here
                                      AP [PARAM_L_SAVED_TOKENCNT] = 6; ! longword + type, size bytes
                                      COPY_BUFFER [0] = SMG$K_OPERAND<0,8>; ! type
COPY_BUFFER [1] = 0;
                                      CHSMOVE (4, AP [TPA$L_NUMBER], COPY_BUFFER [2]);
                                                                              ! store binary operand
                                 If this is the second operand, then we need to store an operator.
                                      IF .SMG$$MASK_ADR NEQ O
```

Page 88 (14)

```
SMG$STRING_TABL TPARSE tables for string capabilities 1-003 STORE_OPERAND - Store arithmetic operand
                                                                                                                                                   VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32;1
                                                                                                                                                                                                                Page 89 (14)
                                                     BEGIN
COPY_BUFFER [6] = .SMG$$MASK_ADR;
AP [PARAM_L_SAVED_TOKENENT] = .AP [PARAM_L_SAVED_TOKENENT] + 1;
                                               AP [PARAM_L_SAVED_TOKENSTR] = COPY_BUFFER;
                                               CALLG (.AP, SMG$$FLUSH_ARITHMETIC); ! write the buffer
                                               SMG$$MASK_ADR = 0;
                                                                                                           ! re-init operator
                                               RETURN (SS$_NORMAL);
                                              END:
                                                                                                           ! end of routine STORE_OPERAND
                                                                                            0004 00000 STORE_OPERAND:
                                                                                                                            WORD
MOVAB
SUBL2
                                                                                                                                         Save R2
SMG$$MASK_ADR, R2
                                                                                                                                                                                                                       1379
                                                                                              9E 00002
C2 00009
D0 0000C
9B 00010
D0 00014
D0 00019
13 0001C
90 0001E
D6 00022
9E 00025
FA 00029
D4 00030
D0 00032
                                                                      0000000G
                                                                                         0086FC270CEC21
                                                                                                                                         #8, SP
#6, 84(AP)
#253, COPY_BUFFER
28(AP), COPY_BUFFER+2
SMG$$MASK_ADR, RO
                                                                                                                            MOVL
                                                                                                                            MOVZBW
                                                                                                                            MOVL
                                                                                                                            MOVL
                                                                                                                            BEQL
                                                                                                                                         RO, COPY_BUFFER+6
84(AP)
                                                                                                                                                                                                                      1436
1437
1440
1442
1444
1446
1448
                                                                                                                            MOVB
                                                                                                                            INCL
                                                                                                                                         COPY_BUFFER, 88(AP)
(AP), SMG$$FLUSH_ARITHMETIC
SMG$$MASK_ADR
                                              0000000G
                                                                                                                            MOVAB
                                                                                                                            CALLG
                                                                                                                            CLRL
                                                                 50
                                                                                                                            MOVL
                                                                                                                                         #1, RO
```

Routine Base: \_SMG\$CODE + 0248

; Routine Size: 54 bytes.

```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 STORE_SUBSTITUTION - store substitution flag in 14-Sep-1984 13:10:04
                                                                                                                  VAX-11 Bliss-32 V4.0-742 [SMGRTL.SRC]SMGSTRTAB.B32;1
                                                                                                                                                                       (15)
                                                                                                                                                                  Page
                               %SBTTL 'STORE_SUBSTITUTION - store substitution flag in arithmetic cap'
ROUTINE STORE_SUBSTITUTION =
  FUNCTIONAL DESCRIPTION:
                                          Store an encoded flag indicating that a user argument must be
                                          substituted into the expression at run-time.
                                  CALLING SEQUENCE:
                    status = STORE_SUBSTITUTION ()
                                 FORMAL PARAMETERS:
                                         NONE
                                  IMPLICIT INPUTS:
                                         AP
                                                    Points to TPARSE parameter block
                                  IMPLICIT OUTPUTS:
                                         NONE
                                 COMPLETION STATUS:
                                          SS$_NORMAL
                                 SIDE EFFECTS:
  1418
  BEGIN
                                    BUILTIN
                                         CALLG.
                                         AP:
                                    MAP
                                         AP : REF BLOCK [,BYTE];
                                         COPY_BUFFER : VECTOR [3,BYTE];
                                    COPY_BUFFER [0] = SMG$K_SUBSTITUTE <0.8>;
COPY_BUFFER [1] = .AP [TPA$L_NUMBER];
! store decimal argument number as a byte
AP [PARAM_L_SAVED_TOKEN(NT] = 2;
                                 See if there's a saved operator that needs to be inserted.
                                    IF .SMG$$MASK_ADR NEQ 0
                                    THEN
                                         BEGIN
                                         COPY_BUFFER [2] = .SMG$$MASK_ADR;
AP [PARAM_L_SAVED_TOKENENT] = .AP [PARAM_L_SAVED_TOKENENT] + 1;
```

```
SMG$STRING_TABL TPARSE tables for string capabilities 16-Sep-1984 01:22:35 1-003 STORE_SUBSTITUTION - store substitution flag in 14-Sep-1984 13:10:04
                                                                                                                                                 VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32;1
                                                                                                                                                                                                                   (15)
                                                                                                                                                                                                             Page ...
                                                     SMG$$MASK_ADR = 0;
END;
                                              AP [PARAM_L_SAVED_TOKENSTR] = COPY_BUFFER;
                                              CALLG (.AP, SMG$$FLUSH_ARITHMETIC); ! move buffer to data area
                                              RETURN (SS$_NORMAL);
                                              END:
                                                                                                          ! end of routine STORE_SUBSTITUTION
                                                                                           0004 00000 STORE_SUBSTITUTION:
                                                                                                                                       Save R2
SMG$$MASK_ADR, R2
                                                                                                                                                                                                                   1450
                                                                                             9E 00002
C2 00009
8E 0000C
90 0000F
D0 00014
D0 00018
13 0001B
90 0001D
D6 00021
D4 00024
9E 00026 1$:
FA 0002A
D0 00031
04 00034
                                                                     0000000G
                                                                                                                          MOVAB
                                                                SE AE AC SO
                                                                                       0044C2290C2EC1
                                                                                                                                       #4, SP
#4, COPY_BUFFER
28(AP), COPY_BUFFER+1
#2, 84(AP)
                                                                                                                          SUBL 2
                                                                                                                                                                                                                   1492
1493
1495
                                                                                                                          MNEGB
                                                                                                                          MOVB
                                                                                                                          MOVL
                                                                                                                                       SMG$$MASK_ADR, RO
                                                                                                                          MOVL
                                                                                                                                                                                                                   1501
                                                                                                                          BEQL
                                                                                                                                                                                                                   1504
1505
1506
1509
1511
1514
                                                                                                                                       RO, COPY_BUFFER+2
                                                                                                                          MOVB
                                                                                                                          INCL
                                                                                                                                       SMG$$MASK_ADR
COPY_BUFFER, 88(AP)
(AP), SMG$$FLUSH_ARITHMETIC
#1, RO
                                              000000006
                                                                                                                          MOVAB
                                                                                                                          CALLG
                                                                                                                          MOVL
                                                                                                                          RET
                                                                                                                                                                                                                 : 1516
```

Routine Base: \_SMG\$CODE + 027E

; Routine Size: 53 bytes,

```
L 15
16-Sep-1984 01:22:35
14-Sep-1984 13:10:04
SMG$STRING_TABL TPARSE tables for string capabilities 1-003 NOT_STRING - signal an unknown capbility name
                                                                                                                                                   VAX-11 Bliss-32 V4.0-742
[SMGRTL.SRC]SMGSTRTAB.B32;1
                                                                                                                                                                                                                Page 92
(16)
  1445589012345667890123456778901234588901234599901
1445589012345667890123456777777789012345888901234599901
1446888901234599901
1446888901234599901
                                        %SBTTL 'NOT_STRING - signal an unknown capbility name'
ROUTINE NOT_STRING =
                          FUNCTIONAL DESCRIPTION:
                                                     We just found a unknown capability name. It could be a misspelling or it could be a name misplaced under the wrong heading. Signal an
                                                      error.
                                           CALLING SEQUENCE:
                                                     status = NOT_STRING ()
                                           FORMAL PARAMETERS:
                                                     NONE
                                           IMPLICIT INPUTS:
                                                      AP
                                                                   Points to TPARSE parameter block
                                           IMPLICIT OUTPUTS:
                                                     NONE
                                           COMPLETION STATUS:
                                                       SS$_NORMAL
                                           SIDE EFFECTS:
                                               BEGIN
                                              BUILTIN
                                                     AP:
                                              MAP
                                                     AP : REF BLOCK [,BYTE];
                                              SIGNAL_STOP (SMG$_ERRAT_LIN,
3, .SMG$$CURRENT_LINE,
.AP [TPA$L_TOKENENT],
.AP [TPA$L_TOKENPTR],
                                                                    SMGS_NOTSTRCAP)
                                              END:
                                                                                              ! end of routine NOT_STRING
```

0000 00000 NOT\_STRING:

Save nothing SMG\$ NOTSTRCAP 16(AP), -(SP) . WORD 00002 00008 00000 9F 7D DD 00 AC 00 0000000G PUSHAB 7E MOVQ 0000000G PUSHL SMG\$\$CURRENT\_LINE

SMG\$STRING\_TABL TPARSE tables for string capabilities 16-sep-1984 01:22:35 VAX-11 Bliss-32 V4.0-742 Page 93 1-003 NOT\_STRING - signal an unknown capbility name 14-sep-1984 13:10:04 [SMGRTL.SRCJSMGSTRTAB.B32:1 Page 93 (16) CALLS #6, [IB\$STOP] 1558

; Routine Size: 34 bytes, Routine Base: \_SMG\$CODE + 02B3

; 1502 1564 1 !<BLF/PAGE>

|   | 1505 1566 1  | bles for string ca<br>G - signal an unkn<br>ND<br>LUDOM | pabilities<br>own capbil                                     | ity name                      |  | 84 01:22:35<br>84 13:10:04<br>module SMG\$S1     | VAX-11 Bliss-32 V4.0-742<br>[SMGRTL.SRCJSMGSTRTAB.B32;1<br>TRING_TABLES | Page 94       |
|---|--|---|--|-------------------------------|--|--|---|---------------|
|   |  | Desc  | T CHMMADY  |                               |  | .EXTRN LIBS                                      | SSTOP   |               |
|   | Name   | Bytes   | T SUMMARY  |                               | Attributes                                       |  |   |               |
|   | LIB\$KEYO\$ LIB\$KEYO\$ LIB\$KEY1\$ SMG\$CODE  |   | NOVEC, NOWR'<br>NOVEC, NOWR'<br>NOVEC, NOWR'<br>NOVEC, NOWR' | RD . RD . RD . RD . RD . RD . | EXE, SHR,<br>EXE, SHR,<br>EXE, SHR,<br>EXE, SHR, | LCL, REL,<br>LCL, REL,<br>LCL, REL,<br>LCL, REL, | CON. PIC.ALIGN(1) CON. PIC.ALIGN(1) CON. PIC.ALIGN(1) CON. PIC.ALIGN(2) |               |
|   |  | Library Sta   | tistics  |                               |  |  |   |               |
|   | File   |   | Total  | Symbols<br>Loaded             | Percent  | Pages<br>Mapped                                  | Processing<br>Time  |               |
|   | _\$255\$DUA28:[SYSLIB]ST<br>-\$255\$DUA28:[SMGRTL.OB<br>-\$255\$DUA28:[SMGRTL.OB<br>-\$255\$DUA28:[SMGRTL.OB   | ARLET.L32;1<br>J]RTLLIB.L32;1<br>J]SMGLIB.L32;1         | 9776<br>36<br>469  | 172<br>0<br>0                 | 1 0  | 581<br>8<br>38                                   | 00:01.0<br>00:00.1<br>00:00.4   |               |
| : | _\$255\$DUA28:[SYSLIB]TP   |   | 41<br>42   | 14<br>30                      | 34<br>71   | 10<br>14   | 00:00.1<br>00:00.1  |               |
| : | BLISS/CHECK=(FIEL  |   | MAND QUALIF  |                               | SMGSTRTAB/O                                      | BJ=OBJ\$:SMGS1                                   | RTAB MSRC\$:SMGSTRTAB/UPDATE=(E   | NHS:SMGSTRTAB |
|   | Size: 694 code<br>Run Time: 03:48.<br>Elapsed Time: 10:51.<br>Lines/CPU Min: 411<br>Lexemes/CPU-Min:113340<br>Memory Used: 758 pages<br>Compilation Complete | 1   |  |                               |  |  |   |               |

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